Current Meter Observations on the Scotian Rise for November 1980 to October 1981

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ABSTRACT

Lively, R.R. 1984. Current meter observations on the Scotian Rise for November 1980 to October 1981. Can. Tech. Rep. Hydrogr. Ocean Sci. 50: iv + 156 p.

This report presents the results of the Risex experiment on the Scotian Rise for November 1980 to October 1981. The current meters were initially moored by the CSS Dawson on Cruise 80-038, redeployed on Cruises 81-004 and 81-014, recovered on Cruise 81-040.

RÉSUMÉ

Lively, R.R. 1984. Current meter observations on the Scotian Rise for November 1980 to October 1981. Can. Tech. Rep. Hydrogr. Ocean Sci. 50: iv + 156 p.

Le présent rapport contient les résultats de l'expérience Risex effectuée sur le glacis continental Scotian de novembre 1980 à octobre 1981. Les courantomètres ont été mouillés par le Dawson lors de sa mission 80-038, repositionnés lors des missions 81-004 et 81-014 et relevés lors de la mission 81-040.

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Introduction

This report presents the Risex current meter observations in a graphical and statistical form. The experiment was carried out over three Cruises (80-038, 81-004, 81-014) during the time period November 1980 to October 1981. The purpose of the experiment was to investigate the generation conditions for topographic Rossby waves (LeBlond and Mysak, 1978) on the continental rise off Nova Scotia (Louis et al., 1982). Rossby waves detected during the Shelf Break Experiment are assumed to be caused by the interaction of the deep velocity field of a Gulf Stream eddy with the continental rise topography. It was felt that an array with 30 km horizontal and 300-1900 m vertical resolutions would be sufficient to resolve the vorticity field and baroclinic structure of the waves, whereas the duration of the experiment would ensure that at least one or two eddies would be detected (based on historical SST data).

The plan of the project was to take measurements for one year with the moorings located between the 2500 and 3600 m isobaths in the region 41°00.0'N to 41°53.0'N, 63°30.0'W to 65°00.0'W, which was a favoured location (based on SST frontal analysis charts) for the formation of eddies from meanders of the Gulf Stream. The mooring array for the Risex experiment (Fig.1) consisted of five sites (R1-R5), carrying fourteen Aanderaa current meters. Three of the moorings (R1, R4, R5) pierce the main thermocline and have their shallowest instrument at 200 m depth, whereas the other two (R2, R3) carry a single instrument and rise only 100 m off the bottom (Table 1). The full Risex array was deployed in November, 1980, replaced in March and May 1981 and recovered in October, 1981. A performance chart (Fig. 2) shows the data return for each deployment. The overall

return of useful data from the experiment was 62%. Out of the 38 instruments moored 7 were lost, 7 were flooded and dead batteries caused partial data loss to 3 instruments.

Hydrographic surveys were carried out in the area of the moorings for the above three cruises. Although these data are not presented in this report some of the results were used to calculate the field calibrations for salinity (Table 2). Some of the hydrographic data from Cruise 81-014 were used in the study of rapid evolution of a Gulf Stream warm-core ring (Joyce et al., 1984).

Mooring Locations

The mooring array for the Risex experiment on the Scotian Rise were originally laid out as in Table 1 and Figure 1. Some of the locations and depths may vary slightly. A table containing accurate depths and mooring positions is given with each cruise (Tables 5 to 7). The current meter data were collected using Aanderaa current meters. It was originally planned to have the mooring array deployed for a year consisting of two six month periods. After the results of Cruise 80-038 were processed it was found that Aanderaa instruments containing conductivity sensors flooded when deployed below 3000 m. Since the array was already deployed on Cruise 81-004, it was deemed necessary to undertake another Cruise (81-014) to re-deploy sites R1 to R4 which had instruments below 3000 m.

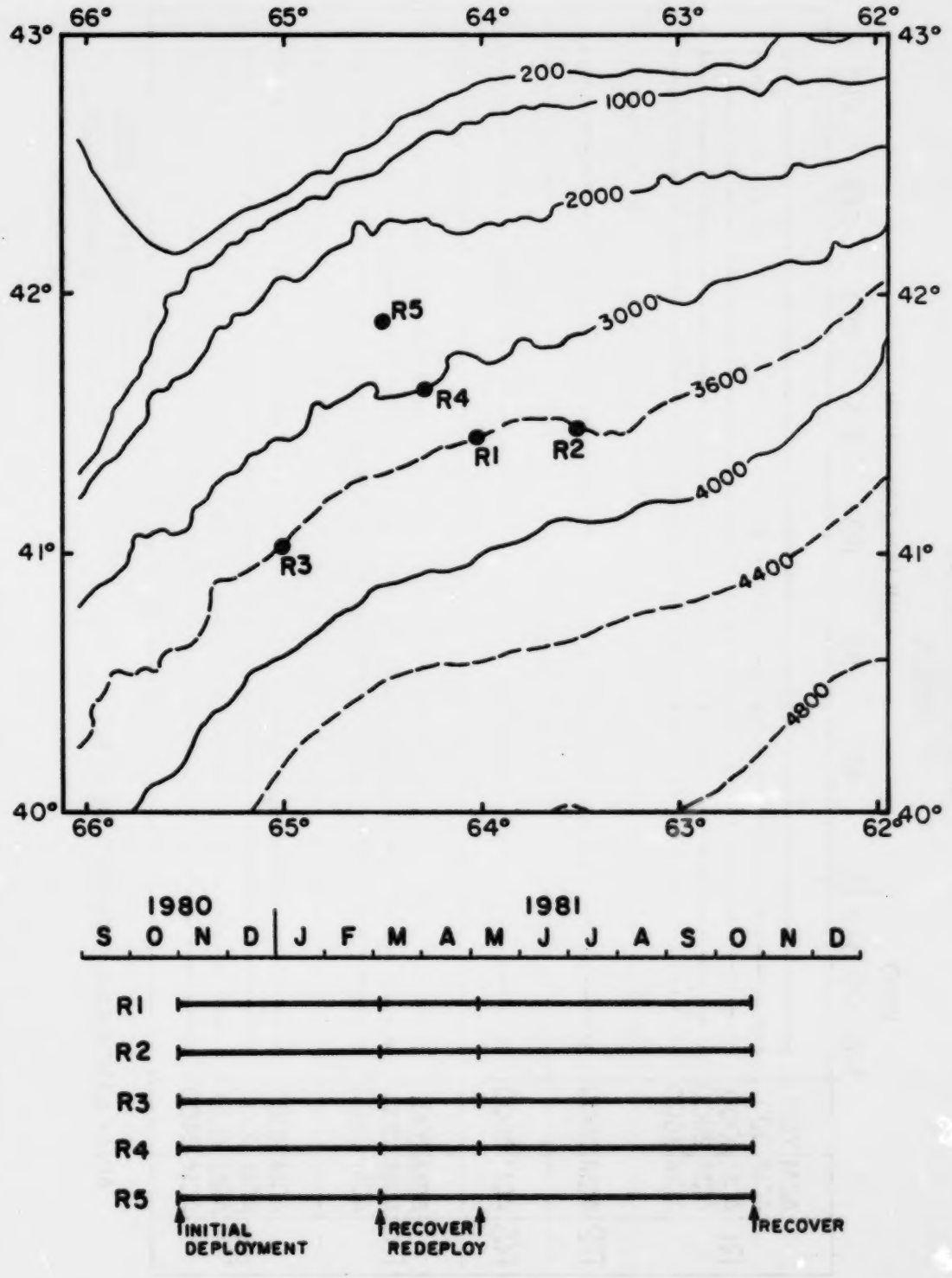

Figure 1 Location of Instruments Moored During Risex Project, November 1980 to October 1981

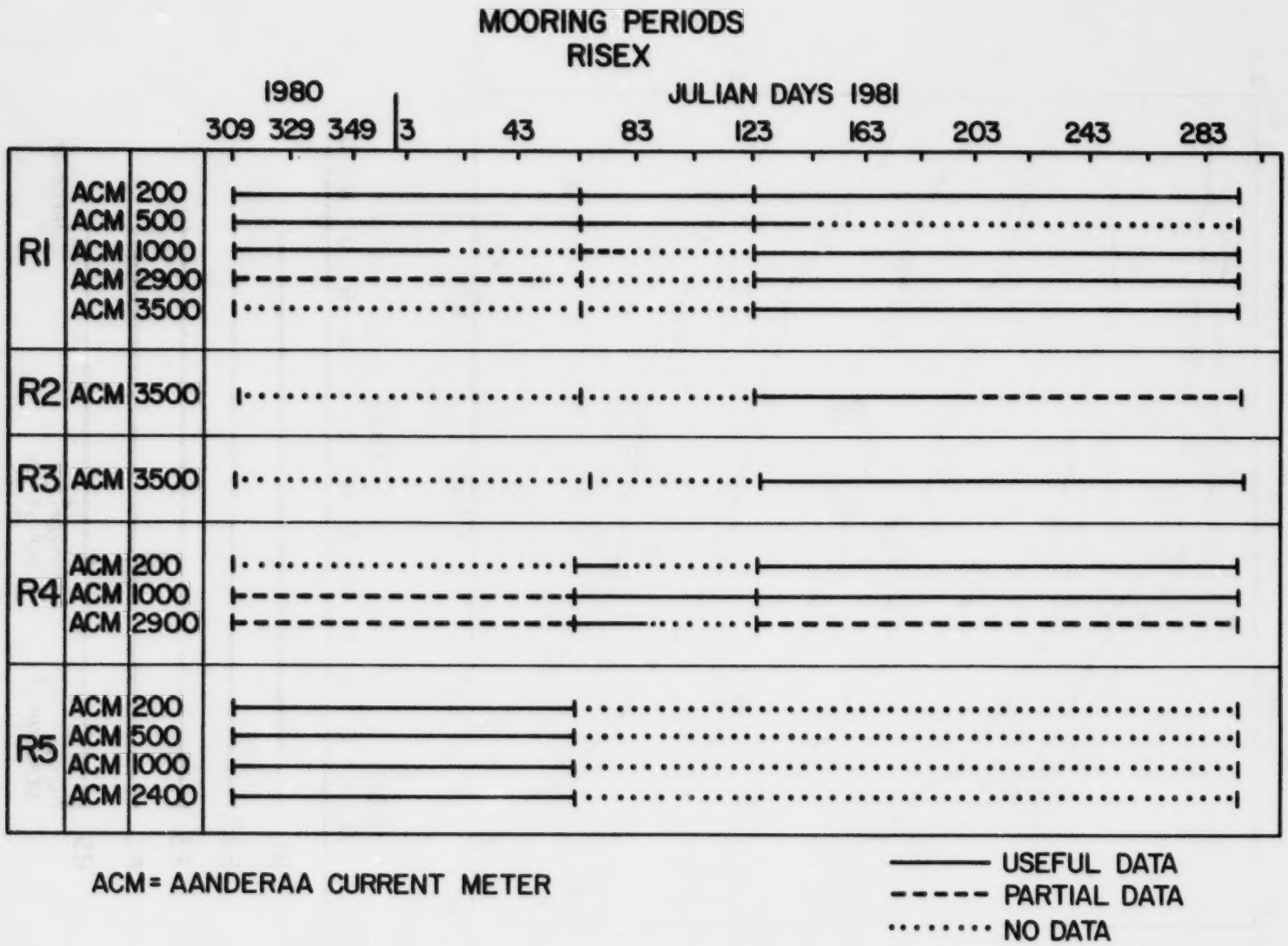

Figure 2 Performance Chart for Instruments Moored During Risex Project, November 1980 to October 1981

TABLE 1

RISEX MOORING ARRAY

Station	Latitude	Longitude	Sounding	Instrument Depth	Type
R1	41°21.0'N	63°58.0'W	3600	200	AANDERAA CURRENT METER
				500	AANDERAA CURRENT METER
				1000	AANDERAA CURRENT METER
				2900	AANDERAA CURRENT METER
				3500	AANDERAA CURRENT METER
R2	41°27.0'N	63°58.0'W	3600	3500	AANDERAA CURRENT METER
R3	41°00.0'N	65°00.0'W	3600	3500	AANDERAA CURRENT METER
R4	41°38.0'N	64°18.0'W	3000	200	AANDERAA CURRENT METER
				1000	AANDERAA CURRENT METER
				2900	AANDERAA CURRENT METER
R5	41°53.0'N	64°32.0'W	2500	200	AANDERAA CURRENT METER
				500	AANDERAA CURRENT METER
				1000	AANDERAA CURRENT METER
				2400	AANDERAA CURRENT METER

Data Accuracy

Factory quoted accuracies for the Aanderaa current meters (RCM4 and RCM5) are as follows:

Current Speed	accuracy ±1 cm/sec., or ±2% of the actual speed, whichever is greater
	range of 2.5 to 250 cm/sec.
	threshold velocity of 2.0 cm/sec.
Current Direction	±7.5° for current speed within 2.5 to 5 cm/sec., or 100 to 200 cm/sec.
	±5° for current speed within 5 to 100 cm/sec.
	resolution of 0.35°
	maximum compass tilt of 12° from horizontal
Temperature	accuracy ±0.05°C
	range -2.46°C to 21.48°C
	resolution of 0.1% of range selected
	63% response time: 12 seconds
Conductivity	calibration accuracy of ±0.025 mmho/cm
	range 25 to 72 mmho/cm
	resolution of 0.1% of range
Pressure	accuracy ±1% of range
	ranges of 0 to 500 psi, 0 to 1000 psi, 0 to 3000 psi, and 0 to 8000 psi
	resolution of 0.1% of range
Quartz Clock	accuracy ±2 sec/day within 0°C to 20°C

In-house calibrations for temperature and conductivity were carried out on the Aanderaa current meters before each deployment. These pre-calibrations were found to be within the manufacturer's specifications. Salinity comparisons were made between the Aanderaa current meters and nearby CTD stations (Table 2). These differences were not applied to the data in this report. A small drift in the conductivity sensor seems to occur over the mooring period. This drift was probably due to pressure effect or inaccuracy with the times for the field calibrations. Compass swings (see below) were done on each Aanderaa current meter before deployment and deviations of the order of ±3° were applied in processing the data.

Data Processing

The Aanderaa current meter data were translated to computer-compatible tape and the encoder numbers were converted to physical units in the following manner:

(a) Current Speed: using the encoder readings (N), the sampling interval (ΔT) and the revolution count (R) were converted by speed (m/s) = $.01[N(0.70(R/\Delta T)) + 1.5]$.

(b) Current Direction: before deployment, in-house compass swings were carried out for all Aanderaa current meters on each cruise. Each instrument was placed on a compass swing table and rotated clockwise in 10.25° increments through a complete revolution and then counterclockwise through a complete revolution. The readings for these revolutions were averaged to produce the calibration points used to correct the direction readings. Direction values are then calculated from the current meter reading by linear interpolation between compass

calibration points. A local variation that was applied to the data was taken from Chart 5375 (Haslan, 1981).

(c) Temperature: calculated using quadratic least squares fit to the in-house calibration data.

(d) Conductivity: a linear relationship was based on in-house calibrations performed on each sensor. Temperature, conductivity and pressure values were then used to calculate the salinity using the UNESCO formula (Perkin and Lewis, 1980). No account was taken of the mismatch between temperature and conductivity sensor responses.

(e) Pressure: calculated using quadratic least squares fit to the manufacturer's (or in-house) calibration data with the equation, pressure (DBAR) = A + BN, where A and B are the calibration values and N is the decimal equivalent of the encoder number.

The raw data (30-minute interval) were processed to 1-hour interval by using a box-car filter which produces a 3 point running mean. The filtered data for 6-hour intervals was created from 1-hour intervals using a Cartwright low-pass filter with 129 weights and a cut off frequency of 0.036 cph (25% power is passed at 28.4 hours) (AOL, 1979). A performance chart (Fig. 2) gives the data return for each instrument moored for the entire experiment.

Data Presentation:

This report contains graphical and statistical representations of current meter data from Cruises 80-038, 81-004, 81-014. The mooring period

covered is from November 1980 to October 1981. Statistical tables (Table 3) and tidal tables (Table 4) which include record-mean tidal ellipses for the current velocity, tidal constituents for temperature, salinity, sigma-t from the current meters are followed by a set of diagrams for each instrument. These are presented in the following order:

(a) Current velocity as a progressive vector (1-hour intervals) and stick plots filtered and subsampled at 6-hour intervals.

(b) Rate, true direction, temperature and salinity as a time series plot (1-hour interval).

(c) Current velocity (U and V components), temperature salinity and sigma-t as a time series plot filtered and subsampled at 6-hour intervals.

(d) Current rate and direction as a joint distribution diagram.

(e) Temperature and salinity as a joint distribution diagram.

In steps (d) and (e) if one of the elements is missing then a histogram for the remaining element is given. The graphs and statistical diagrams for the current meters as described in steps (a) to (e) are ordered sequentially by cruise number, consecutive station number and depth. Each set of diagrams for the cruise is preceded by a table (Tables 5-7) giving the accurate depth, latitude, longitude, sounding, instrument (number and type) and comments for each instrument. All graphs were computer produced and plotted on an incremental plotter. Day numbers on the graphs are in Julian days. Current meter time series and stick plots are presented in 180 day segments. The progressive vector diagrams are for the entire mooring period. The arrows represent true north on the progressive vector and stick diagrams. Current velocity data were resolved using an angle section

(v-component roughly across the isobaths) of 340° for sites R1, R2, R4, R5 and 315° for site R3.

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TABLE 2

FIELD CALIBRATIONS FOR CAPE SABLE SALINITY MEASUREMENTS NOVEMBER, 1980 TO OCTOBER, 1981

	WINTER 80-038				SPRING 81-004				SUMMER 81-014			
	Δ S Start ✓	Δ S End ✓	Δ Time Start +	Δ Time End +	Δ S Start	Δ S End	Δ Time Start	Δ Time End	Δ S Start	Δ S End	Δ Time Start	Δ Time End
R1 (200)	0.23	0.04	-0 hrs, 1 min	-0 hrs, 9 min	0.19	0.26	8 hrs,12 min	-6 hrs,34 min	-0.21	0.01*	-0 hrs,14 min	-3 hrs,49 min
(500)	0.18	0.11	-0 hrs, 6 min	-0 hrs,14 min	0.41	0.42	8 hrs,12 min	-6 hrs,34 min	0.43	short	-0 hrs,14 min	-152 days
		(419) X				(446)				(454)		
(1000)	0.04	short	-0 hrs, 6 min	-47 days	0.09	short	8 hrs,12 min	-49 days	NO S	NO S	NO S	NO S
(2900)	0.31	short	-0 hrs, 6 min	-19 days	Failed			Failed	NO S	NO S	NO S	NO S
(3500)		Failed			Failed			Failed	NO S	NO S	NO S	NO S
		(420)				(447)				(452)		
R2(3500)	lost			lost	Failed			Failed	NO CTD	NO S	NO CTD	NO S
		(421)				(448)				(453)		
R3(3500)	Failed			Failed	Failed			Failed	NO CTD	NO S	NO CTD	NO S
R4 (200)	lost			lost	NO CTD	short		NO CTD	NO S	NO S	NO S	NO S
		(422)				(449)				(455)		
(1000)	0.10	NO CTD	-0 hrs, 2 min	NO CTD	NO CTD	0.13		NO CTD	NO S	NO S	NO S	NO S
(2900)	0.28	NO CTD	-0 hrs, 2 min	NO CTD	NO CTD	NO CTD		NO CTD	NO S	NO S	NO S	NO S
R5 (200)	0.10	NO CTD	0 hrs,15 min	NO CTD								
(500)	0.22	NO CTD	0 hrs, 8 min	NO CTD								
		(423)			Lost	(450)		Lost				
(1000)	0.08	NO CTD	0 hrs, 4 min	NO CTD								
(2400)	0.13	NO CTD	0 hrs,15 min	NO CTD								

"Failed" means that the instrument malfunctioned, usually flooded.
"Lost" means that the instrument was never recovered.
"Short" means that the CM record was not complete.
"NO S" means that there was no salinity channel

"NO CTD" means that there was no CTD station suitable for comparison or that there was no reasonable CTD pressure for comparison.
"*" means that pressure, rather than depth was used for comparison.

✓ $\Delta S = S_{CM} - S_{CTD}$

\+ $\Delta Time = Time_{CM} - Time_{CTD}$

x (consecutive mooring number)

TABLE 3

OVERALL STATISTICS FOR CURRENT, TEMPERATURE, SALINITY, AND DENSITY

Instrument (Station, Depth)	No. of Hourly Samples	U ($m\ s^{-1}$)*			V ($m\ s^{-1}$)*			T (°C)			S (°/••)			Sigma-T ($kg\ m^{-3}$)			Time Span
		Mean	σ_1+	σ_6+	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	
R1(419,200 m)	2894	0.00	0.15	0.12	-0.03	0.15	0.07	12.79	1.41	1.21	35.61	0.24	0.21	26.90	0.10	0.09	04/11/80 to 05/03/81
R1(446,200 m)	1462	0.07	0.20	0.17	0.08	0.14	0.10	11.23	0.02	1.67	35.40	0.30	0.29	27.04	0.07	0.06	05/03/81 to 05/05/81
R1(454,200 m)	4099	-0.03	0.13	0.12	0.01	0.13	0.00	11.43	1.29	1.26	35.32	0.21	0.20	26.94	0.09	0.08	06/05/81 to 23/10/81
R1(419,500 m)	2893	-0.02	0.08	0.07	-0.00	0.06	0.03	6.57	0.63	0.51	35.13	0.05	0.05	27.59	0.05	0.04	04/11/80 to 05/03/81
R1(446,500 m)	1462	0.00	0.10	0.08	0.04	0.07	0.05	5.51	0.64	0.61	35.43	0.05	0.04	27.96	0.07	0.06	05/03/81 to 05/05/81
R1(454,500 m)	439	-0.08	0.08	0.04	0.01	0.08	0.03	6.08	0.35	0.23	35.44	0.03	0.02	27.90	0.04	0.02	06/05/81 to 24/05/81
R1(419,1000 m)	1769	-0.03	0.05	0.05	0.00	0.03	0.01	4.35	0.10	0.08	35.03	0.02	0.01	27.78	0.01	0.01	04/11/80 to 17/01/81
R1(446,1000 m)	288	-0.01	0.09	0.09	0.08	0.05	0.02	4.18	0.12	0.10	35.05	0.03	0.03	27.82	0.01	0.01	05/03/81 to 17/03/81
R1(454,1000 m)	4099	-0.04	0.05	0.05	0.00	0.04	0.03	4.25	0.10	0.09							06/05/81 to 23/10/81

*(U,V) components oriented at (70, 340) degrees true
+(σ_1, σ_6) = standard deviations for 1-hr and 6-hr data

TABLE 3 (Continued)

Instrument (Station, Depth)	No. of Hourly Samples	U ($m\ s^{-1}$)*			V ($m\ s^{-1}$)*			T (°C)			S (°/••)			Sigma-T ($kg\ m^{-3}$)			Time Span
		Mean	σ_1+	σ_6+	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	
R1(419,2900 m)	2445	-0.04	0.07	0.07	0.00	0.04	0.02	2.72	0.10	0.09	35.41	0.09	0.08	28.26	0.07	0.07	05/11/81 to 14/02/81
R1(454,2900 m)	4099	-0.04	0.06	0.05	0.00	0.04	0.02	2.60	0.07	0.07							06/05/81 to 23/10/81
R1(454,3500 m)	4099	-0.04	0.08	0.08	0.00	0.04	0.03	2.37	0.06	0.05							06/05/81 to 23/10/81
R2(452,3500 m)	4123	-0.04	0.08	0.08	0.00	0.05	0.04	2.34	0.07	0.06							05/05/81 to 24/10/81
R3(453,3500 m)	4105	-0.03	0.12	0.12	0.02	0.05	0.03	2.30	0.05	0.05							07/05/81 to 25/10/81
B4(449,200 m)	329	-0.04	0.10	0.07	0.07	0.12	0.03	8.29	1.11	0.11	35.03	0.14	0.14	27.25	0.10	0.09	04/03/81 to 17/03/81
B4(455,200 m)	4071	-0.05	0.11	0.08	-0.01	0.14	0.12	11.09	1.19	1.16							06/05/81 to 23/10/81
B4(422,1000 m)	2854	-0.02	0.04	0.03	0.00	0.04	0.02	4.16	0.10	0.09	35.04	0.02	0.02	27.81	0.01	0.01	04/11/80 to 03/03/81
B4(449,1000 m)	1529	-0.04	0.05	0.04	0.01	0.04	0.02	4.13	0.08	0.07	35.10	0.02	0.02	27.86	0.01	0.01	04/03/81 to 06/05/81
B4(455,1000 m)	4071	-0.04	0.05	0.05	0.00	0.05	0.04	4.20	0.07	0.06							06/05/81 to 23/10/81

*(U,V) components oriented at (70, 340) degress true except for R3 which is (315, 45) degrees true

+(σ_1, σ_6) = standard deviations for 1-hr and 6-hr data

TABLE 3 (Continued)

Instrument (Station, Depth)	No. of Hourly Samples	U ($m\ s^{-1}$)*			V ($m\ s^{-1}$)*			T (°C)			S (°/••)			Sigma-T ($kg\ m^{-3}$)			Time Span
		Mean	σ_1+	σ_6+	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	Mean	σ_1	σ_6	
B4(422,2900 m)	2854	-0.02	0.06	0.06	0.00	0.04	0.03	2.70	0.07	0.06	35.24	0.02	0.01	28.13	0.01	0.01	04/11/80 to 03/03/81
B4(449,2900 m)	600	-0.04	0.06	0.05	0.01	0.05	0.03	2.67	0.06	0.05	35.08	0.01	0.01	28.00	0.01	0.01	03/03/81 to 28/03/81
B4(455,2900 m)	4056	-0.03	0.05	0.05	0.01	0.04	0.02	2.70	0.12	0.11							06/05/81 to 22/10/81
R5(423,200 m)	2853	0.04	0.12	0.09	-0.03	0.14	0.11	10.77	1.50	0.14	35.36	0.21	0.21	27.09	0.13	0.12	04/11/80 to 03/03/81
R5(423,500 m)	2853	0.00	0.07	0.03	-0.01	0.08	0.04	5.46	0.38	0.36	35.18	0.03	0.02	27.77	0.04	0.04	04/11/80 to 03/03/81
R5(423,1000 m)	2853	-0.01	0.05	0.03	-0.01	0.04	0.02	4.21	0.08	0.07	34.97	0.02	0.01	27.75	0.01	0.01	04/11/80 to 03/03/81
R5(423,2400 m)	2853	-0.02	0.05	0.03	0.00	0.04	0.02	3.12	0.05	0.04	35.07	0.02	0.01	27.95	0.01	0.01	04/11/80 to 03/03/81

*(U,V) components oriented at (70, 340) degrees true

+(σ_1,σ_6) = standard deviations for 1-hr and 6-hr data

TABLE 4

GENERAL TIDAL ANALYSIS FOR CURRENTS, TEMPERATURE, SALINITY, SIGMA-T

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 4, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/..)	PHASE (GMT)	AMP. (kg m^{-3})	PHASE (GMT)
R1(419,200 M)	K1	0.003	0.001	337.	214/c	0.011	12.65	0.017	14.11	0.012	12.99
	O1	0.004	0.002	22.	221/c	0.017	218.01	0.006	34.46	0.008	36.07
	M2	0.073	0.046	329.	172/c	0.169	349.34	0.007	21.67	0.030	162.20
	S2	0.018	0.012	306.	214/c	0.061	43.57	0.013	291.05	0.020	253.39
	N2	0.017	0.015	59.	172/c	0.061	274.71	0.053	265.96	0.031	261.70
	MF	0.039	0.013	295.	177/A	0.465	35.76	0.119	40.54	0.008	69.57
	M4	0.007	0.003	97.	238/c	0.027	221.08	0.025	193.75	0.016	183.40
	MS4	0.005	0.003	6.	155/c	0.017	183.98	0.001	184.34	0.003	5.67
		CENTERED AT DAY 4, 1981									
R1(419,500 M)	K1	0.001	0.000	10.	359/c	0.004	22.36	0.015	5.80	0.012	4.91
	O1	0.001	0.001	25.	251/c	0.009	237.26	0.007	27.82	0.006	33.48
	M2	0.014	0.009	16.	214/c	0.276	335.12	0.002	311.08	0.036	155.06
	S2	0.003	0.003	349.	19/c	0.082	19.29	0.019	286.32	0.020	251.15
	N2	0.007	0.004	75.	123/c	0.057	240.45	0.050	261.75	0.033	266.20
	MF	0.016	0.007	108.	306/c	0.078	51.28	0.039	59.32	0.021	62.50
	M4	0.003	0.002	97.	206/c	0.028	212.98	0.023	184.66	0.015	176.97
	MS4	0.002	0.000	299.	27/c	0.015	257.14	0.002	302.96	0.001	45.69
		CENTERED AT DAY 346, 1980									
R1(419,1000 M)	K1	0.001	0.001	353.	241/c	0.002	356.38	0.014	24.72	0.011	25.17
	O1	0.003	0.001	315.	175/c	0.013	117.77	0.088	122.75	0.070	122.80
	M2	0.014	0.001	314.	315/A	0.040	347.10	0.082	45.37	0.064	48.59
	S2	0.004	0.001	342.	2/c	0.014	3.03	0.097	345.76	0.077	345.33
	N2	0.004	0.000	96.	120/A	0.014	231.39	0.065	299.21	0.051	300.71
	MF	0.028	0.009	85.	265/c	0.051	303.61	0.103	339.03	0.079	341.33
	M4	0.002	0.001	326.	149/c	0.006	184.83	0.034	182.49	0.027	182.23
	MS4	0.001	0.000	4.	89/A	0.004	130.38	0.037	112.79	0.029	112.32

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 360, 1980									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/..)	PHASE (GMT)	AMP. (kg m^{-3})	PHASE (GMT)
R1(419,2900 M)	K1	0.000	0.000	6.	257/A	0.003	250.41	0.024	249.21	0.019	249.13
	O1	0.003	0.000	295.	207/c	0.005	167.55	0.054	164.21	0.043	164.12
	M2	0.023	0.008	317.	28/c	0.008	20.87	0.024	139.09	0.019	140.69
	S2	0.001	0.000	11.	36/A	0.005	99.19	0.049	51.55	0.039	50.95
	N2	0.006	0.003	4.	341/c	0.007	251.40	0.024	208.29	0.019	207.04
	MF	0.038	0.005	87.	275/c	0.043	17.20	0.079	352.35	0.060	350.87
	M4	0.002	0.000	112.	111/c	0.003	192.40	0.046	186.51	0.036	186.26
	MS4	0.001	0.001	93.	80/c	0.004	100.04	0.054	99.84	0.043	99.63
		CENTERED AT DAY 3, 1981									
R4(422,1000 M)	K1	0.001	0.000	106.	118/c	0.003	177.97	0.025	188.18	0.020	188.29
	O1	0.001	0.000	34.	147/A	0.008	76.26	0.056	68.71	0.044	68.51
	M2	0.014	0.003	339.	288/A	0.019	210.51	0.035	347.92	0.030	350.46
	S2	0.005	0.001	303.	19/c	0.012	327.95	0.042	282.02	0.033	280.39
	N2	0.005	0.002	26.	218/c	0.005	98.88	0.041	127.68	0.033	128.05
	MF	0.010	0.006	28.	334/A	0.007	344.09	0.053	30.05	0.042	30.77
	M4	0.000	0.000	311.	188/c	0.006	231.69	0.044	246.22	0.035	246.25
	MS4	0.000	0.000	47.	40/A	0.006	197.55	0.047	183.09	0.037	182.66
		CENTERED AT DAY 3, 1981									
R4(422,2900 M)	K1	0.002	0.000	336.	281/A	0.003	161.23	0.024	190.35	0.019	190.60
	O1	0.003	0.000	32.	221/A	0.004	81.56	0.057	69.60	0.046	69.46
	M2	0.015	0.001	310.	288/A	0.003	263.39	0.037	346.93	0.029	347.34
	S2	0.007	0.002	301.	290/c	0.004	279.28	0.044	281.02	0.035	280.93
	N2	0.006	0.002	107.	114/c	0.002	151.43	0.042	128.86	0.033	128.65
	MF	0.010	0.002	329.	46/c	0.019	350.54	0.050	30.76	0.039	32.30
	M4	0.002	0.001	24.	36/c	0.004	243.78	0.045	246.60	0.036	246.42
	MS4	0.001	0.001	57.	149/c	0.003	183.02	0.047	183.13	0.038	182.93

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 3, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/..)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R5(423,200 M)	K1	0.006	0.001	339.	293/c	0.008	54.55	0.025	121.46	0.020	125.29
	O1	0.004	0.004	68.	359/c	0.020	10.44	0.057	10.06	0.043	10.21
	M2	0.064	0.001	312.	293/c	0.223	66.65	0.027	211.69	0.060	234.21
	S2	0.011	0.002	0.	265/A	0.043	65.59	0.039	152.75	0.033	166.68
	N2	0.019	0.008	317.	252/c	0.092	19.00	0.046	9.64	0.021	359.99
	MF	0.019	0.007	327.	344/A	0.269	273.22	0.032	332.16	0.045	53.29
	M4	0.006	0.005	337.	269/c	0.042	51.35	0.045	5.32	0.032	354 80
	MS4	0.002	0.000	4.	313/c	0.016	252.59	0.048	291.87	0.037	294.48
		CENTERED AT DAY 3, 1981									
R5(423,500 M)	K1	0.002	0.001	49.	235/A	0.005	122.81	0.025	123.60	0.019	123.59
	O1	0.004	0.002	342.	166/c	0.009	345.91	0.057	7.21	0.045	7.68
	M2	0.038	0.010	111.	165/c	0.083	88.23	0.033	220.21	0.035	232.71
	S2	0.005	0.000	31.	287/A	0.028	161.29	0.043	152.62	0.032	151.55
	N2	0.012	0.005	309.	305/c	0.024	20.10	0.042	5.86	0.031	4.27
	MF	0.005	0.004	38.	236/A	0.086	327.88	0.055	21.66	0.039	34.41
	M4	0.002	0.001	352.	59/c	0.017	42.12	0.044	355.59	0.034	352.81
	MS4	0.001	0.000	86.	103/A	0.003	324.63	0.047	287.63	0.038	287.14
		CENTERED AT DAY 3, 1981									
R5(423,1000 M)	K1	0.002	0.000	112.	165/c	0.004	80.94	0.025	122.30	0.020	123.00
	O1	0.002	0.000	327.	245/c	0.007	349.37	0.056	6.80	0.045	6.33
	M2	0.025	0.003	300.	354/c	0.009	106.83	0.035	221.05	0.028	222.69
	S2	0.005	0.000	296.	26/c	0.010	167.88	0.043	148.87	0.034	148.18
	N2	0.004	0.000	321.	300/A	0.009	341.38	0.043	2.19	0.033	2.66
	MF	0.007	0.005	73.	207/A	0.020	325.59	0.053	23.52	0.041	26.11
	M4	0.001	0.000	347.	109/c	0.006	9.14	0.044	350.37	0.035	348.83
	MS4	0.000	0.000	90.	331/c	0.005	293.58	0.047	283.60	0.037	283.25

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 3, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/..)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R5(423,2400 M)	K1	0.003	0.000	341.	280/c	0.002	146.29	0.025	124.93	0.020	124.69
	O1	0.003	0.000	7.	177/c	0.006	12.58	0.057	8.79	0.046	8.70
	M2	0.022	0.001	321.	342/c	0.006	249.14	0.035	225.61	0.028	225.09
	S2	0.007	0.003	311.	34/c	0.004	109.48	0.043	154.47	0.034	154.76
	N2	0.004	0.001	77.	155/c	0.004	6.14	0.042	8.55	0.034	8.48
	MF	0.009	0.003	46.	226/A	0.012	26.09	0.052	26.86	0.041	26.88
	M4	0.003	0.002	13.	149/c	0.004	13.52	0.044	0.91	0.035	0.57
	MS4	0.001	0.000	15.	168/c	0.004	305.54	0.047	295.03	0.038	294.71
		CENTERED AT DAY 95, 1981									
R1(446,200 M)	K1	0.005	0.002	348.	186/c	0.088	242.10	0.047	262.21	0.023	275.95
	O1	0.007	0.002	16.	330/c	0.064	160.47	0.102	235.16	0.081	243.40
	M2	0.103	0.081	308.	219/c	0.307	23.91	0.061	267.45	0.091	233.03
	S2	0.014	0.006	300.	283/c	0.045	245.42	0.060	261.03	0.040	263.78
	N2	0.042	0.028	76.	300/c	0.138	318.43	0.095	270.10	0.064	251.74
	MF	0.072	0.010	84.	221/c	0.259	335.21	0.141	305.07	0.082	283.94
	M4	0.013	0.008	308.	281/c	0.020	50.45	0.061	28.54	0.047	26.81
	MS4	0.004	0.002	47.	313/A	0.027	69.94	0.085	52.38	0.065	50.79
		CENTERED AT DAY 95, 1981									
R1(446,500 M)	K1	0.005	0.001	31.	185/c	0.013	322.05	0.031	283.88	0.024	281.66
	O1	0.002	0.001	39.	224/c	0.011	242.64	0.103	243.20	0.082	243.22
	M2	0.040	0.024	316.	243/c	0.247	35.20	0.078	239.75	0.093	231.80
	S2	0.013	0.010	328.	317/c	0.045	96.61	0.050	262.53	0.046	264.25
	N2	0.021	0.019	355.	201/c	0.071	303.37	0.081	256.78	0.060	250.98
	MF	0.042	0.008	57.	158/c	0.170	34.76	0.121	302.64	0.101	289.58
	M4	0.005	0.004	103.	71/c	0.047	82.41	0.065	31.02	0.049	25.40
	MS4	0.002	0.000	321.	32/c	0.004	262.08	0.086	50.86	0.070	50.74

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 70, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/₀₀)	PHASE (GMT)	AMP. (kg m^{-3})	PHASE (GMT)
R1(446,1000 M)	K1	0.005	0.002	89.	192/c	0.010	41.55	0.041	33.76	0.032	33.49
	O1	0.004	0.002	87.	90/A	0.037	179.11	0.183	163.68	0.144	163.22
	M2	0.013	0.005	62.	183/c	0.126	146.92	1.258	148.08	1.001	147.99
	S2	0.007	0.005	39.	321/c	0.062	107.03	0.352	106.44	0.277	106.33
	N2	0.010	0.007	338.	277/c	0.178	317.34	1.388	305.43	1.101	305.12
	MF	0.161	0.040	48.	160/c	0.155	312.48	0.263	.31	0.201	3.80
	M4	0.005	0.004	296.	347/c	0.048	39.36	0.338	26.07	0.268	25.61
	MS4	0.002	0.000	298.	47/A	0.009	330.94	0.137	353.38	0.110	353.35
		CENTERED AT DAY 69, 1981									
R4(449,200 M)	K1	0.007	0.002	335.	35/A	0.044	89.63	0.446	92.06	0.355	91.91
	O1	0.008	0.000	336.	179/c	0.054	72.70	0.335	28.07	0.268	26.67
	M2	0.078	0.042	112.	209/c	0.059	315.93	0.930	42.84	0.755	43.62
	S2	0.027	0.018	298.	97/c	0.140	9.65	0.543	339.32	0.422	337.38
	N2	0.049	0.033	99.	179/c	0.464	246.75	0.748	214.02	0.545	209.91
	MF	0.137	0.019	2.	85/A	1.419	118.69	0.104	98.50	0.148	308.58
	M4	0.017	0.006	319.	257/c	0.070	65.94	0.016	108.12	0.008	166.30
	MS4	0.010	0.004	338.	314/A	0.048	144.11	0.101	112.15	0.076	108.50
		CENTERED AT DAY 94, 1981									
R4(449,1000 M)	K1	0.003	0.002	354.	55/c	0.015	144.17	0.048	142.47	0.037	142.32
	O1	0.002	0.000	92.	80/A	0.015	287.51	0.064	295.74	0.050	295.95
	M2	0.021	0.002	325.	308/c	0.021	271.14	0.030	336.52	0.023	341.37
	S2	0.006	0.002	106.	207/c	0.016	1.76	0.073	348.25	0.057	347.73
	N2	0.008	0.000	115.	133/A	0.026	178.61	0.063	178.34	0.048	178.21
	MF	0.014	0.001	307.	246/c	0.048	119.66	0.096	280.50	0.082	281.69
	M4	0.001	0.000	86.	24/A	0.008	61.83	0.048	39.56	0.038	38.86
	MS4	0.001	0.000	36.	162/c	0.009	53.73	0.086	49.52	0.068	49.25

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 75, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/oo)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R4(449,2900 M)	K1	0.006	0.002	340.	332/A	0.006	241.51	0.052	259.56	0.041	259.72
	O1	0.004	0.001	68.	252/A	0.012	217.41	0.163	223.31	0.130	223.30
	M2	0.019	0.003	91.	144/A	0.009	225.47	0.172	213.08	0.137	212.91
	S2	0.008	0.002	346.	181/c	0.001	241.79	0.005	252.89	0.004	252.93
	N2	0.003	0.001	316.	293/A	0.017	306.15	0.212	311.86	0.169	311.81
	MF	0.063	0.000	105.	330/A	0.069	36.84	0.148	306.86	0.119	304.04
	M4	0.004	0.003	345.	118/c	0.018	149.95	0.243	154.62	0.194	154.46
	MS4	0.002	0.001	21.	72/c	0.011	44.15	0.141	48.18	0.112	48.01
		CENTERED AT DAY 211, 1981									
R1(454,200 M)	K1	0.003	0.000	70.	185/c	0.011	16.34	0.024	62.11	0.018	66.79
	O1	0.003	0.002	330.	248/c	0.014	227.17	0.029	232.55	0.021	233.06
	M2	0.071	0.046	338.	176/c	0.177	344.30	0.008	346.97	0.026	163.94
	S2	0.014	0.010	347.	219/c	0.022	109.11	0.035	5.71	0.030	357.41
	N2	0.014	0.010	4.	127/c	0.027	267.89	0.014	341.03	0.012	4.35
	MF	0.037	0.008	79.	290/c	0.060	4.85	0.049	94.75	0.041	108.81
	M4	0.007	0.004	320.	149/c	0.008	303.46	0.004	166.02	0.005	154.30
	MS4	0.005	0.003	329.	223/c	0.024	339.80	0.034	325.82	0.023	323.50
		CENTERED AT DAY 135, 1981									
R1(454,500 M)	K1	0.004	0.000	33.	123/A	0.054	111.58	0.278	116.24	0.218	116.35
	O1	0.008	0.004	351.	287/c	0.003	320.59	0.064	271.57	0.052	271.07
	M2	0.035	0.010	345.	204/c	0.239	3.25	0.426	283.77	0.341	278.54
	S2	0.007	0.002	314.	340/c	0.028	359.91	0.244	27.51	0.194	27.92
	N2	0.031	0.009	33.	124/c	0.229	332.83	0.453	319.32	0.338	318.05
	MF	0.060	0.013	63.	135/A	0.288	60.05	0.399	81.86	0.288	84.65
	M4	0.004	0.002	319.	245/c	0.044	98.38	0.241	293.95	0.201	293.33
	MS4	0.003	0.001	52.	211/A	0.007	342.34	0.015	351.01	0.012	351.12

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 211, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/oo)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R1(454,1000 M)	K1	0.002	0.001	14.	242/c	0.004	48.23				
	O1	0.001	0.001	97.	33/c	0.002	244.14				
	M2	0.011	0.002	307.	347/A	0.025	347.78				
	S2	0.004	0.002	360.	337/c	0.005	29.66				
	N2	0.006	0.003	106.	145/c	0.005	326.81				
	MF	0.009	0.000	99.	205/c	0.032	199.60				
	M4	0.001	0.000	3.	274/A	0.003	10.60				
	MS4	0.001	0.000	301.	328/c	0.005	359.43				
		CENTERED AT DAY 211, 1981									
R1(454,2900 M)	K1	0.002	0.001	320.	252/c	0.002	87.29				
	O1	0.001	0.001	316.	203/c	0.001	228.48				
	M2	0.034	0.012	134.	329/c	0.009	316.95				
	S2	0.004	0.001	135.	4/c	0.005	10.84				
	N2	0.007	0.003	342.	275/c	0.000	279.36				
	MF	0.016	0.001	90.	182/c	0.022	260.75				
	M4	0.002	0.000	319.	335/c	0.001	286.53				
	MS4	0.001	0.000	328.	46/c	0.002	346.95				
		CENTERED AT DAY 211, 1981									
R1(454,3500 M)	K1	0.001	0.001	36.	277/c	0.001	75.45				
	O1	0.002	0.000	111.	1/A	0.003	295.47				
	M2	0.033	0.011	310.	333/c	0.002	299.88				
	S2	0.005	0.001	112.	203/c	0.003	359.79				
	N2	0.007	0.004	352.	287/c	0.001	350.86				
	MF	0.035	0.002	86.	177/c	0.025	253.55				
	M4	0.002	0.000	324.	353/c	0.000	262.50				
	MS4	0.002	0.000	318.	52/c	0.002	331.39				

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 211, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/oo)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R2(452,3500 M)	K1	0.001	0.000	340.	256/c	0.001	286.83				
	O1	0.001	0.000	339.	247/c	0.002	159.85				
	M2	0.026	0.010	315.	312/c	0.002	245.17				
	S2	0.006	0.004	317.	318/c	0.003	104.63				
	N2	0.007	0.002	104.	118/c	0.003	175.36				
	MF	0.026	0.003	87.	127/A	0.023	211.70				
	M4	0.003	0.002	327.	62/c	0.001	275.98				
	MS4	0.001	0.000	56.	173/A	0.002	221.15				
		CENTERED AT DAY 213, 1981									
R3(453,3500 M)	K1	0.002	0.000	50.	294/c	0.002	348.33				
	O1	0.001	0.000	22.	139/A	0.001	67.36				
	M2	0.031	0.022	359.	300/c	0.001	214.76				
	S2	0.012	0.009	1.	356/c	0.000	241.02				
	N2	0.008	0.006	350.	243/c	0.002	238.74				
	MF	0.030	0.005	70.	322/c	0.024	72.30				
	M4	0.003	0.002	301.	130/c	0.000	30.64				
	MS4	0.001	0.000	23.	254/c	0.002	103.46				
		CENTERED AT DAY 211, 1981									
R4(455,200 M)	K1	0.003	0.002	72.	356/c	0.012	115.86				
	O1	0.003	0.001	86.	280/c	0.005	139.86				
	M2	0.072	0.024	309.	10/c	0.282	215.61				
	S2	0.010	0.004	349.	341/c	0.031	234.38				
	N2	0.017	0.011	302.	335/c	0.033	189.06				
	MF	0.020	0.004	353.	210/A	0.219	47.48				
	M4	0.008	0.004	22.	197/c	0.005	144.89				
	MS4	0.004	0.000	344.	207/c	0.011	54.79				

TABLE 4 (Continued)

SITE (Mooring) (Depth)	CONSTITUENT	CENTERED AT DAY 211, 1981									
		CURRENT ELLIPSE				TEMPERATURE		SALINITY		SIGMA-T	
		MAJ. (ms^{-1})	MIN. (ms^{-1})	ORIEN. (°T)	PHASE / SENSE	AMP. (°C)	PHASE (GMT)	AMP. (°/oo)	PHASE (GMT)	AMP. ($kg\ m^{-3}$)	PHASE (GMT)
R4(455,1000 M)	K1	0.001	0.000	78.	163/A	0.001	336.78				
	O1	0.002	0.001	328.	218/c	0.005	143.34				
	M2	0.018	0.003	313.	326/A	0.021	211.82				
	S2	0.003	0.001	348.	324/A	0.008	293.65				
	N2	0.007	0.004	334.	276/c	0.004	234.99				
	MF	0.005	0.002	354.	136/A	0.031	45.61				
	M4	0.001	0.001	17.	22/A	0.003	220.05				
	MS4	0.001	0.000	70.	2/c	0.002	40.29				

		CENTERED AT DAY 211, 1981									
R4(455,2900 M)	K1	0.001	0.000	64.	295/c	0.004	101.89				
	O1	0.001	0.000	309.	250/c	0.002	213.26				
	M2	0.017	0.001	338.	234/A	0.004	118.44				
	S2	0.002	0.000	85.	186/c	0.005	10.22				
	N2	0.006	0.001	10.	182/c	0.005	239.80				
	MF	0.020	0.001	97.	34/A	0.044	154.42				
	M4	0.001	0.001	332.	269/c	0.001	333.03				
	MS4	0.001	0.000	321.	298/c	0.001	172.50				

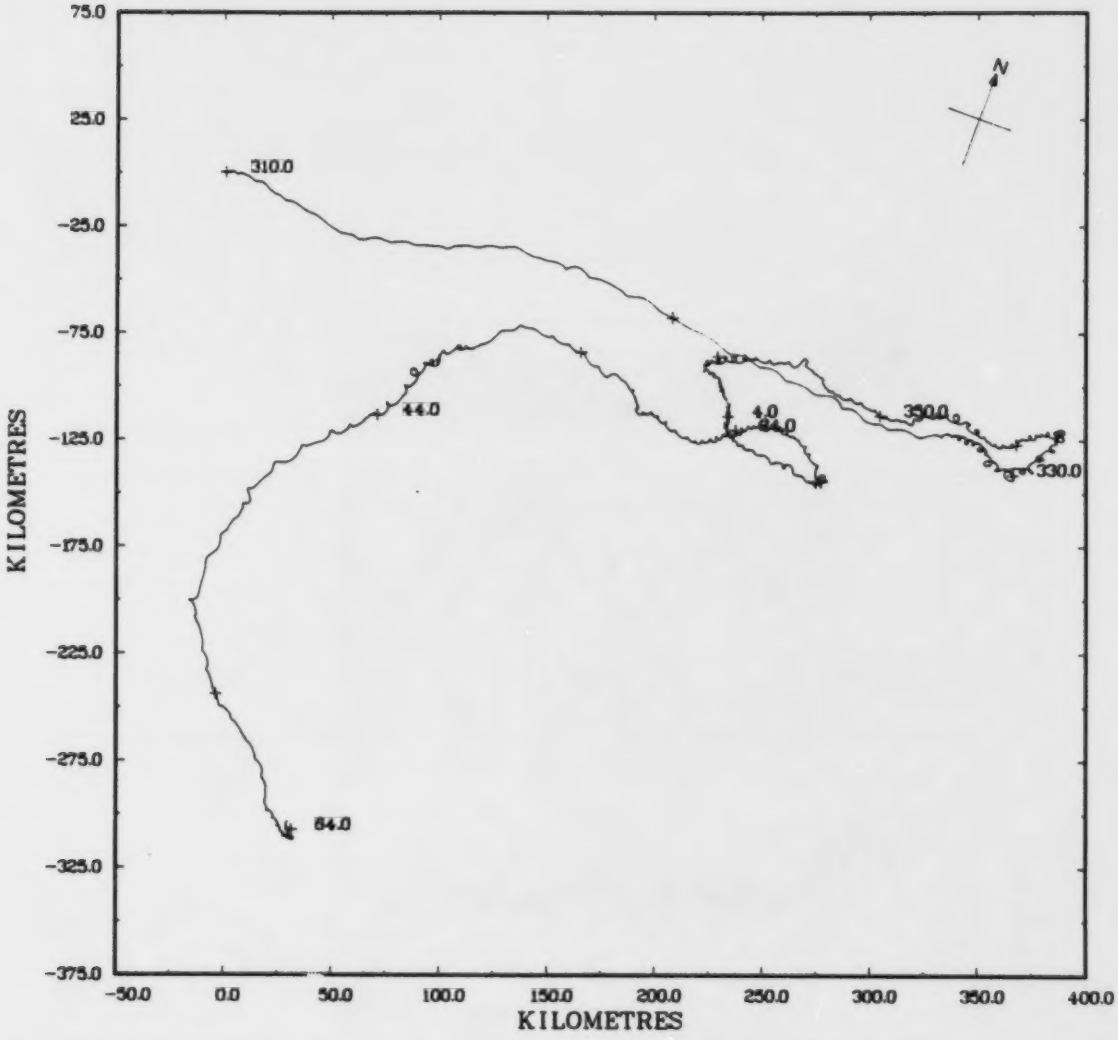
TABLE 5

MOORING SUMMARY, CRUISE 80-038

Station	Latitude	Longitude	Instrument Number, Type*	Nominal Depth	Actual Depth	Sounding	Comments
R1(419)	41°20.64'N	63°57.84'W	2263 A	200	208	3608	
			3584 A	500	508		
			4154 A	1000	1008		Noise problem on all channels record had to be deleted after day 17, 1981.
			786 A	2900	2908		Instrument flooded, record ended on day 45, may have lost cycles throughout the record.
			5002 A	3500	3508		Instrument flooded, no data.
R2(420)	41°26.83'N	63°29.52'W	4210 A	3500	3488	3588	Instrument was not recovered.
R3(421)	41°00.67'N	64°59.11'W	3583 A	3500	3488	3588	Instrument flooded, no data.
R4(422)	41°38.06'N	64°18.00'W	3567 A	200	202	3002	Instrument and surface float broke off and were not recovered.
			5051 A	1000	1002		Top instrument broke off, rest of the mooring may have been tangled, something jammed rotor for days 22 to 43.
			4197 A	2900	2902		Mooring may have been tangled.
R5(423)	41°53.14'N	64°31.71'W	3307 A	200	202	2502	
			217 A	500	502		
			1944 A	1000	1002		
			4201 A	2400	2402		

*A = AANDERAA CURRENT METER

STN. 419, 200 M.



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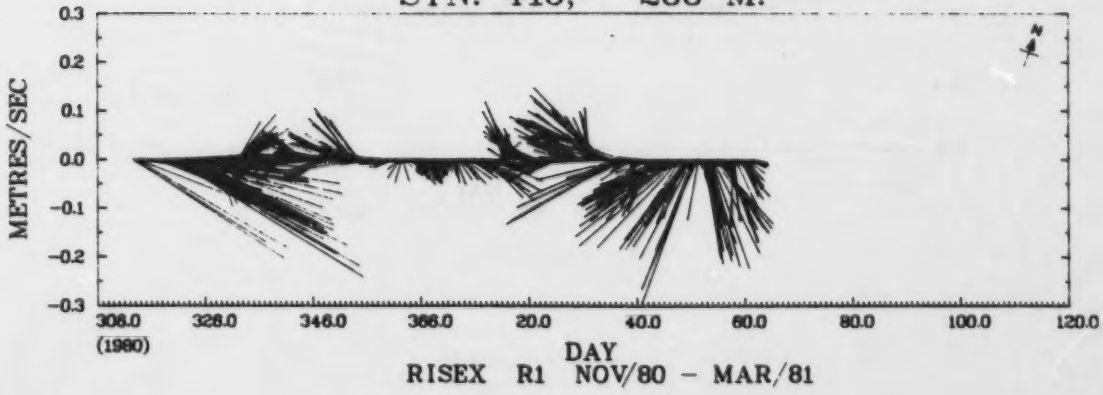
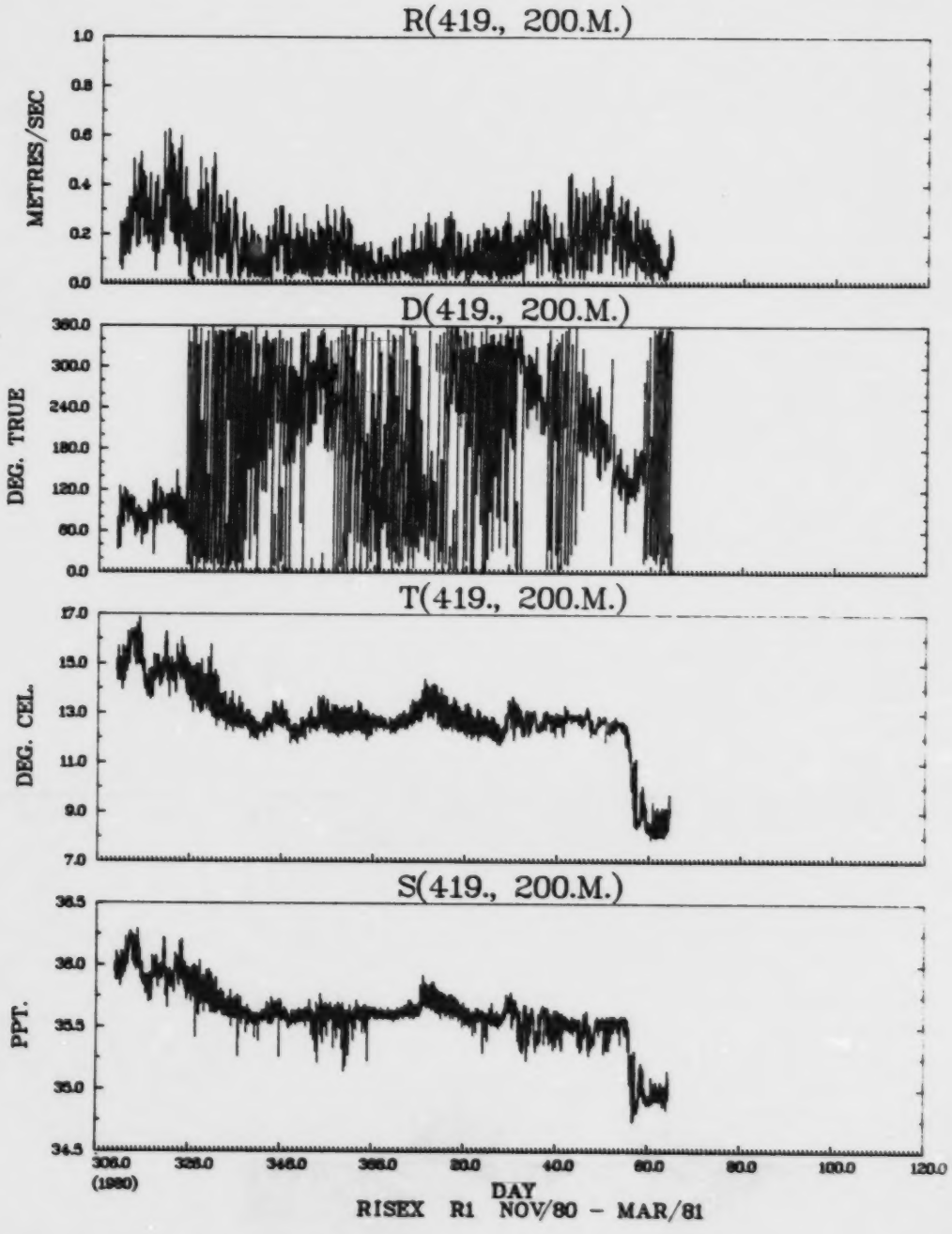
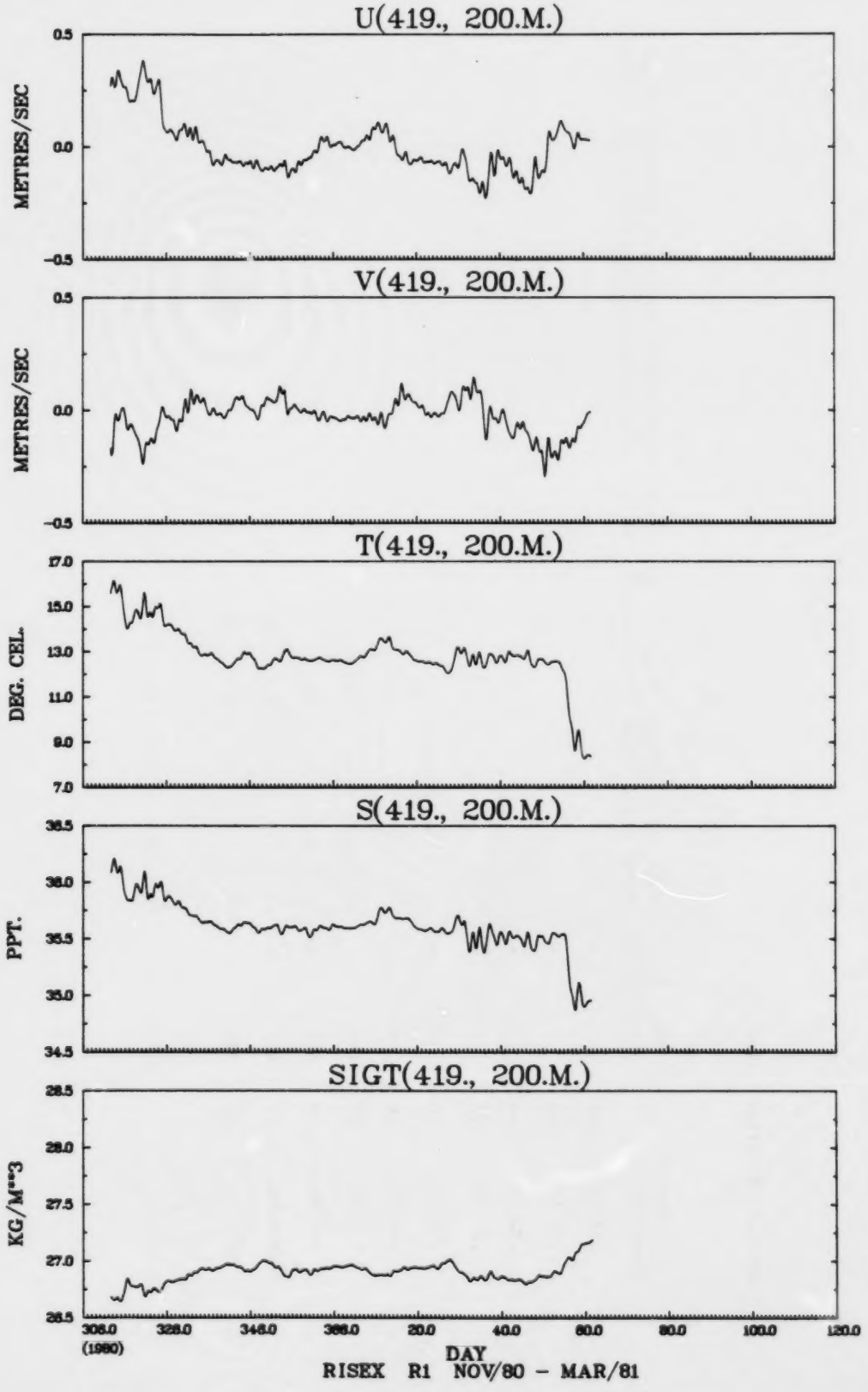


RISEX R1 NOV/80 – MAR/81


R(419., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(419., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(419., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(419., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - MAR/81


U(419., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(419., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(419., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(419., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(419., 200.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - MAR/81

JOINT DISTRIBUTION (PERCENT)

D(419.. 200.M.) VS R(419.. 200.M.)

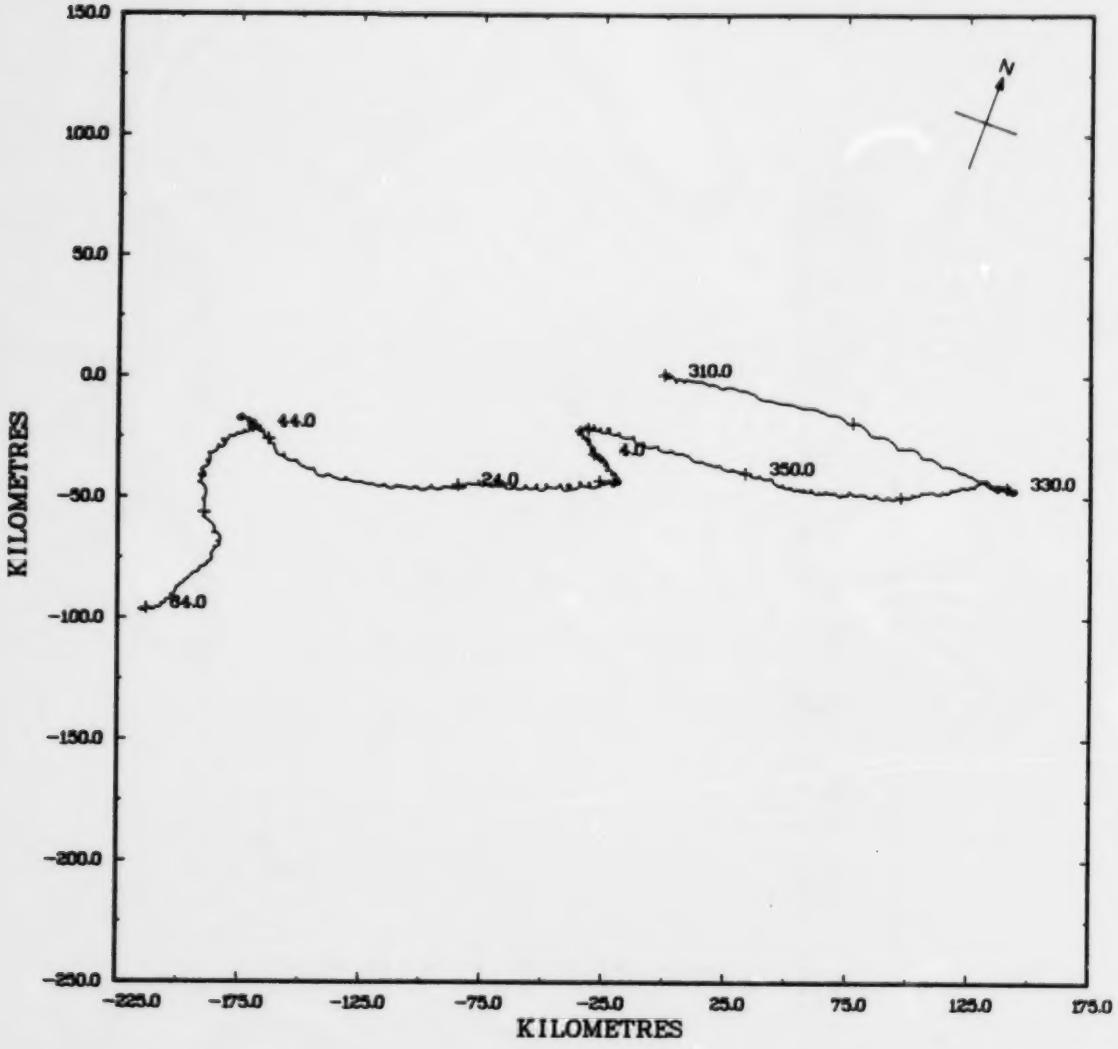
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70	2	*				.1								
.50 TO	.60	14	*		.0	.1	.4								
.40 TO	.50	42	*		.0	.6	1.0	.2	.1	.2	.1				
.30 TO	.40	105	*	.1	.2	1.5	1.8	.3	.7	.9	.6	.2	.4	.1	.0
.20 TO	.30	548	*	.3	1.1	2.8	2.9	2.4	1.2	1.5	1.9	1.7	2.2	1.2	.6
.10 TO	.20	1110	*	1.0	1.4	2.8	3.0	3.5	3.4	3.6	3.2	3.3	3.3	4.4	1.4
-.00 TO	.10	939	*	2.0	2.5	2.8	2.6	3.1	3.0	3.2	2.8	2.8	2.4	3.1	2.1
OUT OF RANGE		0	0												
SUB TOTAL		2894	0	98	151	309	337	274	243	271	247	287	301	254	124

JOINT DISTRIBUTION (PERCENT)

T(419., 200.M.) VS S(419., 200.M.)

DEG. CEL. PPT.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40	19	*								.7	
36.00 TO	36.20	120	*							.1	4.0	
35.80 TO	36.00	331	*							10.6	.8	
35.60 TO	35.80	1019	*						23.7	14.5		
35.40 TO	35.60	1121	*						37.4	1.1		
35.20 TO	35.40	84	*					.2	2.8			
35.00 TO	35.20	65	*				.5	1.8				
34.80 TO	35.00	133	*				4.2	.4				
34.60 TO	34.80	1	*				.0					
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2894	0				136	68	1768	763	159	

STN. 419, 500 M.



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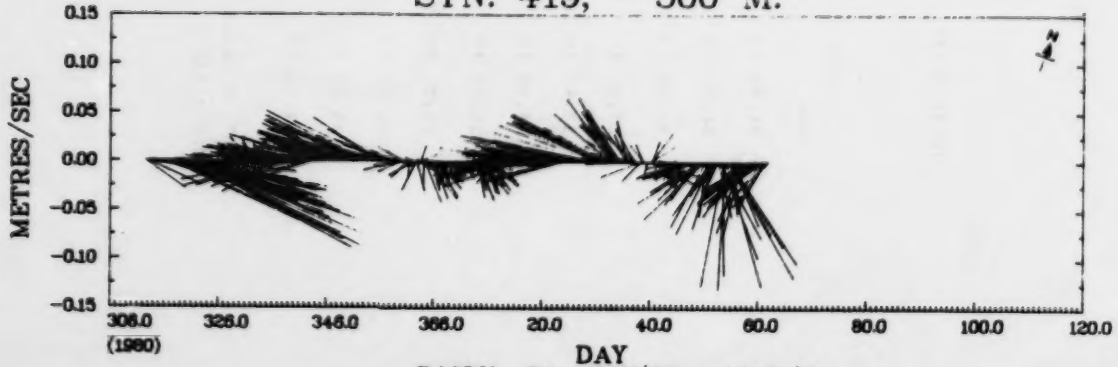
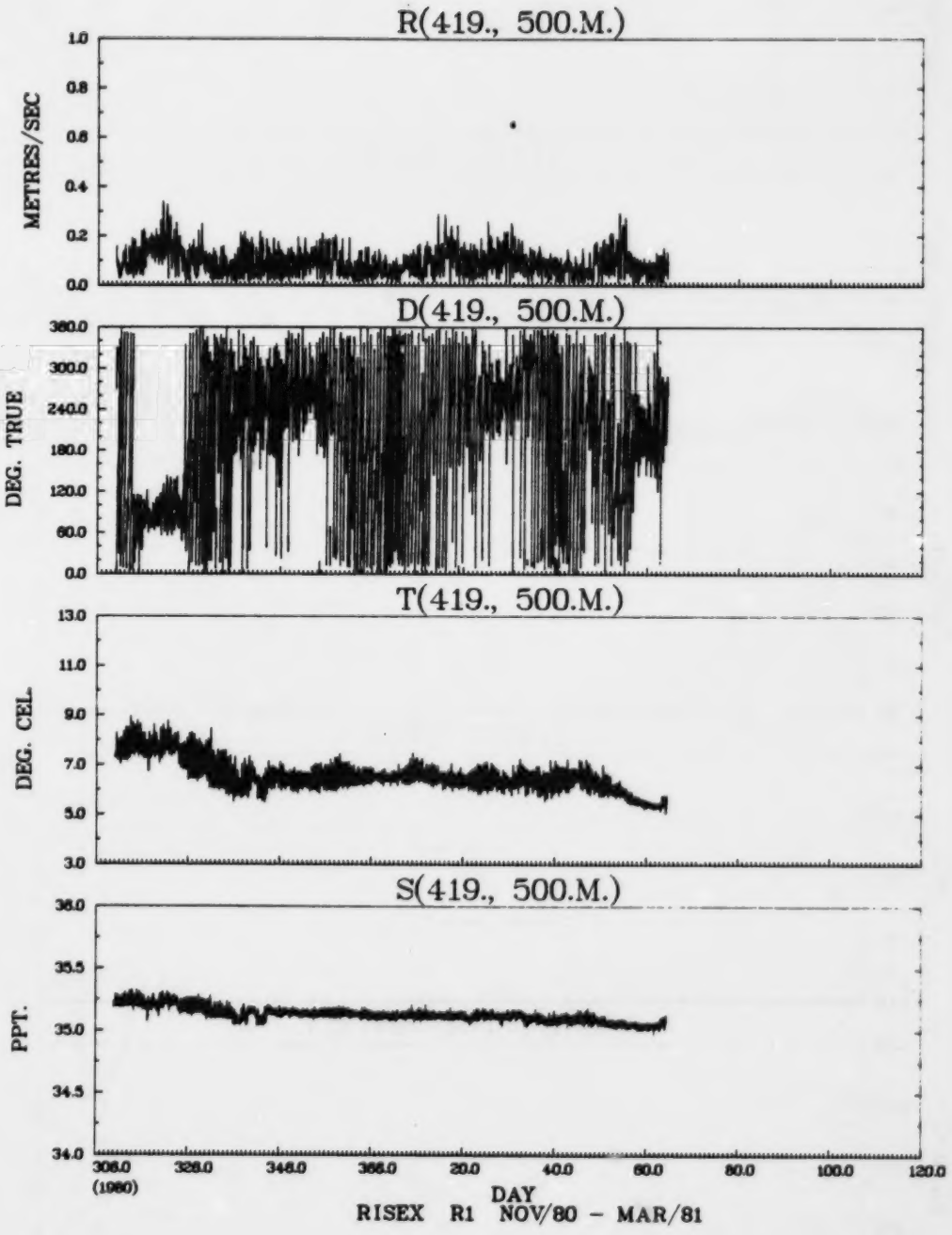
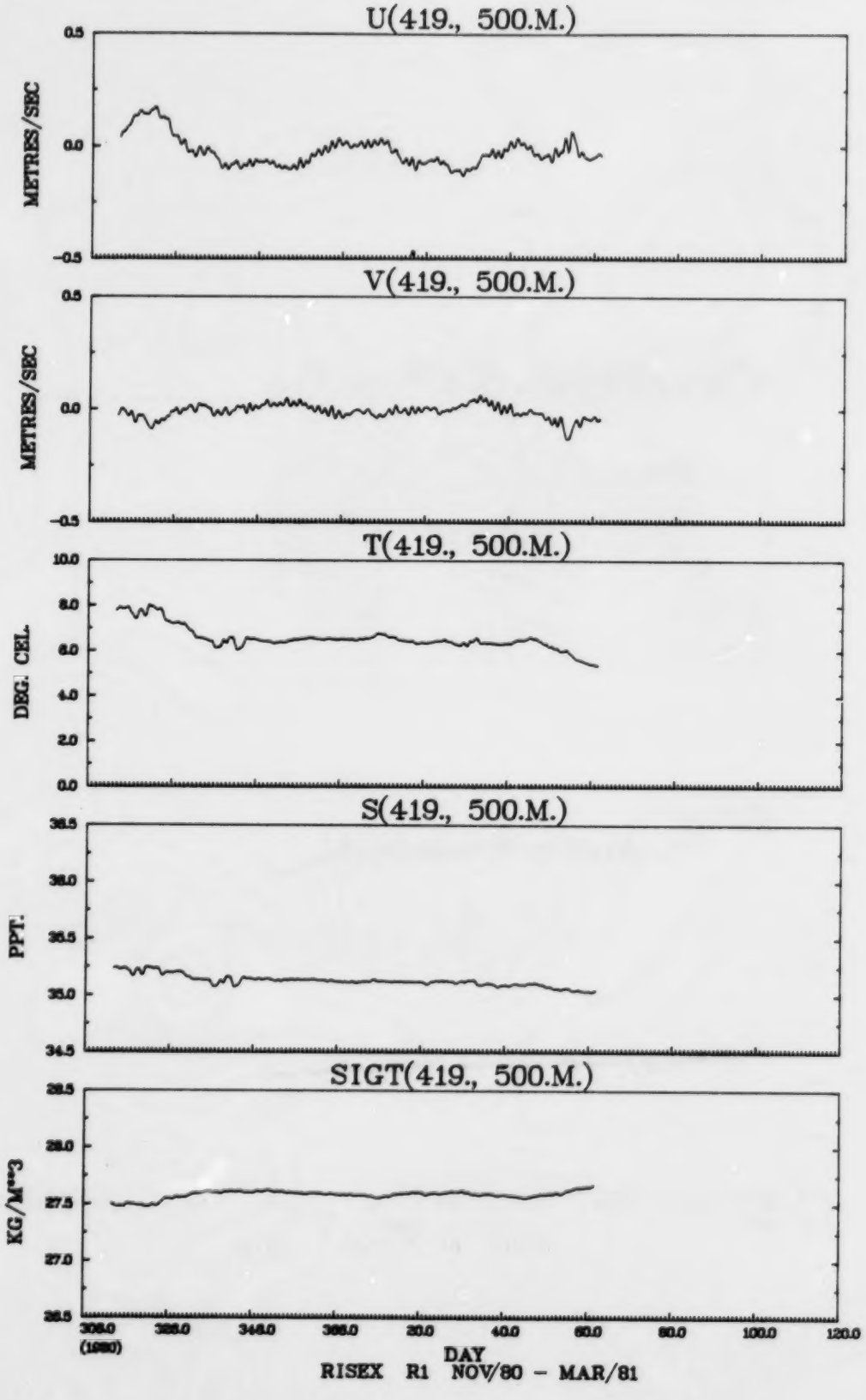


RISEX R1 NOV/80 - MAR/81


R(419., 500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(419., 500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(419., 500.M.)
DEG. CEL.
13.0
11.0
9.0
7.0
5.0
3.0
S(419., 500.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - MAR/81


U(419., 500.M.)
METRES/SEC
0.5
0.0
-0.5
V(419., 500.M.)
METRES/SEC
0.5
0.0
-0.5
T(419., 500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(419., 500.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(419., 500.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - MAR/81

JOINT DISTRIBUTION (PERCENT)

D(419., 500.M.) VS R(419., 500.M.)

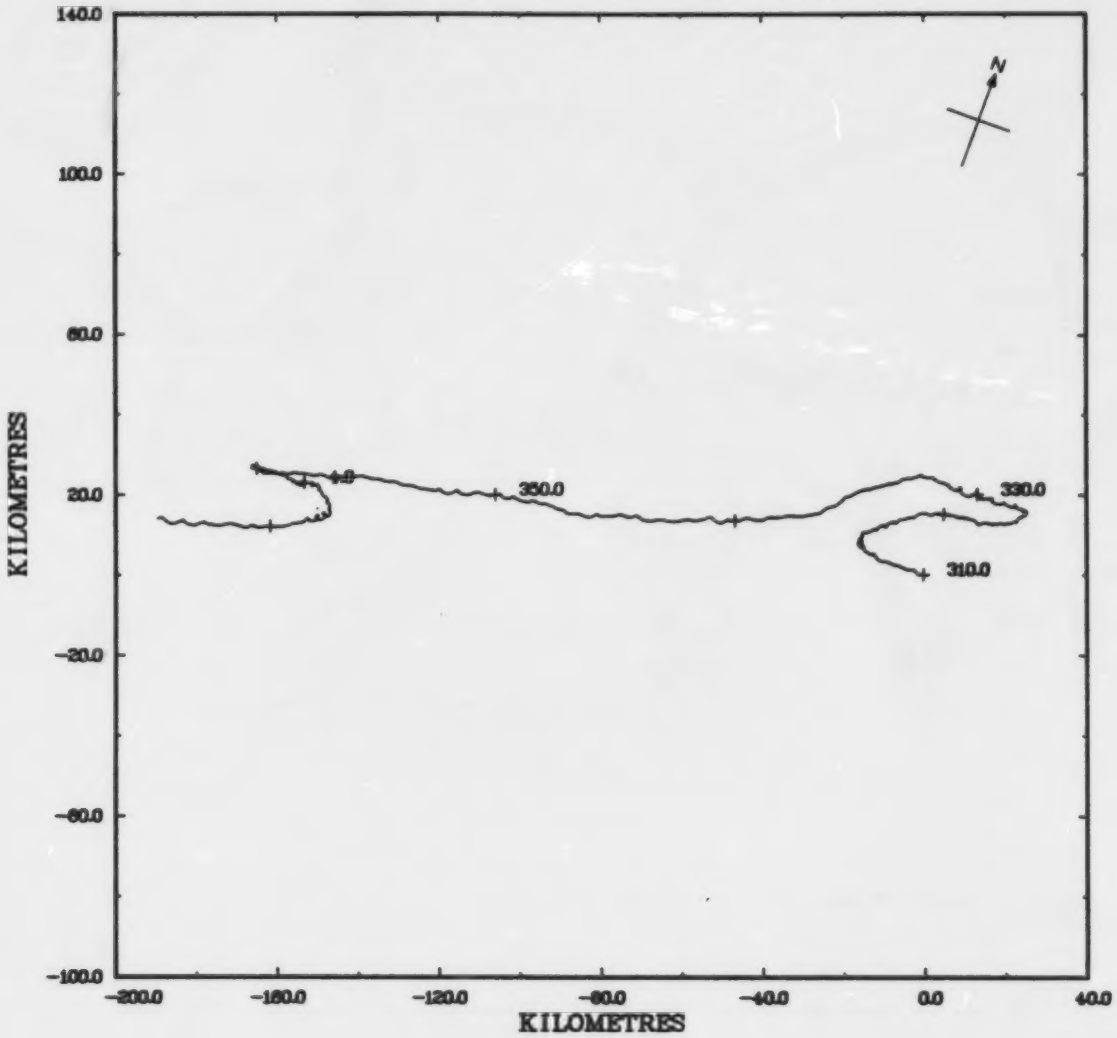
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	6	*			.1	.1								
.20 TO	.30	79	*		.0	.7	.5	.2	.2	.1	.3	.5	.2	.0	
.10 TO	.20	1113	*	.7	1.1	4.5	3.6	1.7	2.1	3.6	4.5	7.9	5.6	2.7	.6
-.00 TO	.10	1695	*	3.0	2.9	4.0	3.8	4.1	4.9	7.2	6.8	6.7	6.3	4.8	4.1
OUT OF RANGE		0	0												
SUB TOTAL		2893	0	105	119	269	232	172	207	314	338	436	348	217	136

JOINT DISTRIBUTION (PERCENT)

T(419., 500.M.) VS S(419., 500.M.)

DEG. CEL. PPT.	SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO 36.60		*									
36.20 TO 36.40		*									
36.00 TO 36.20		*									
35.80 TO 36.00		*									
35.60 TO 35.80		*									
35.40 TO 35.60		*									
35.20 TO 35.40	361	*			.0	12.4					
35.00 TO 35.20	2532	*			82.4	5.1					
34.80 TO 35.00		*									
34.60 TO 34.80		*									
34.40 TO 34.60		*									
OUT OF RANGE	0	0									
SUB TOTAL	2893	0			2386	507					

STN. 419, 1000 M.



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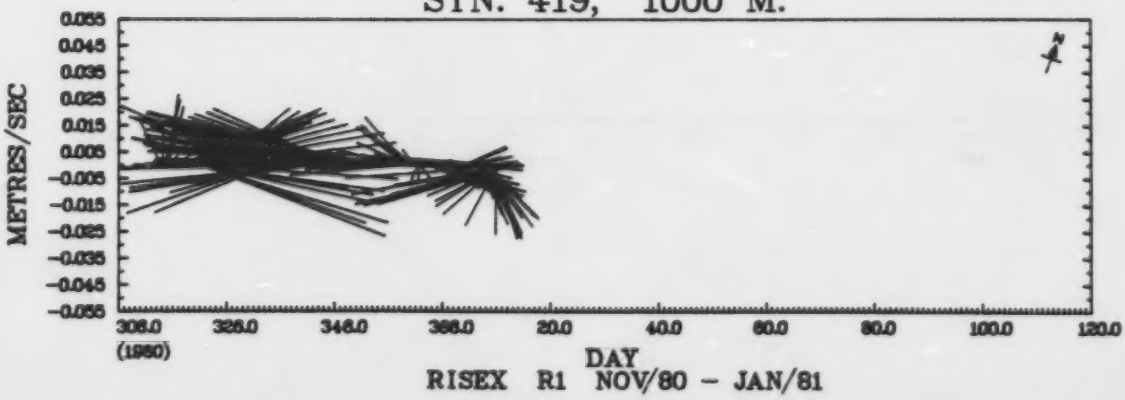
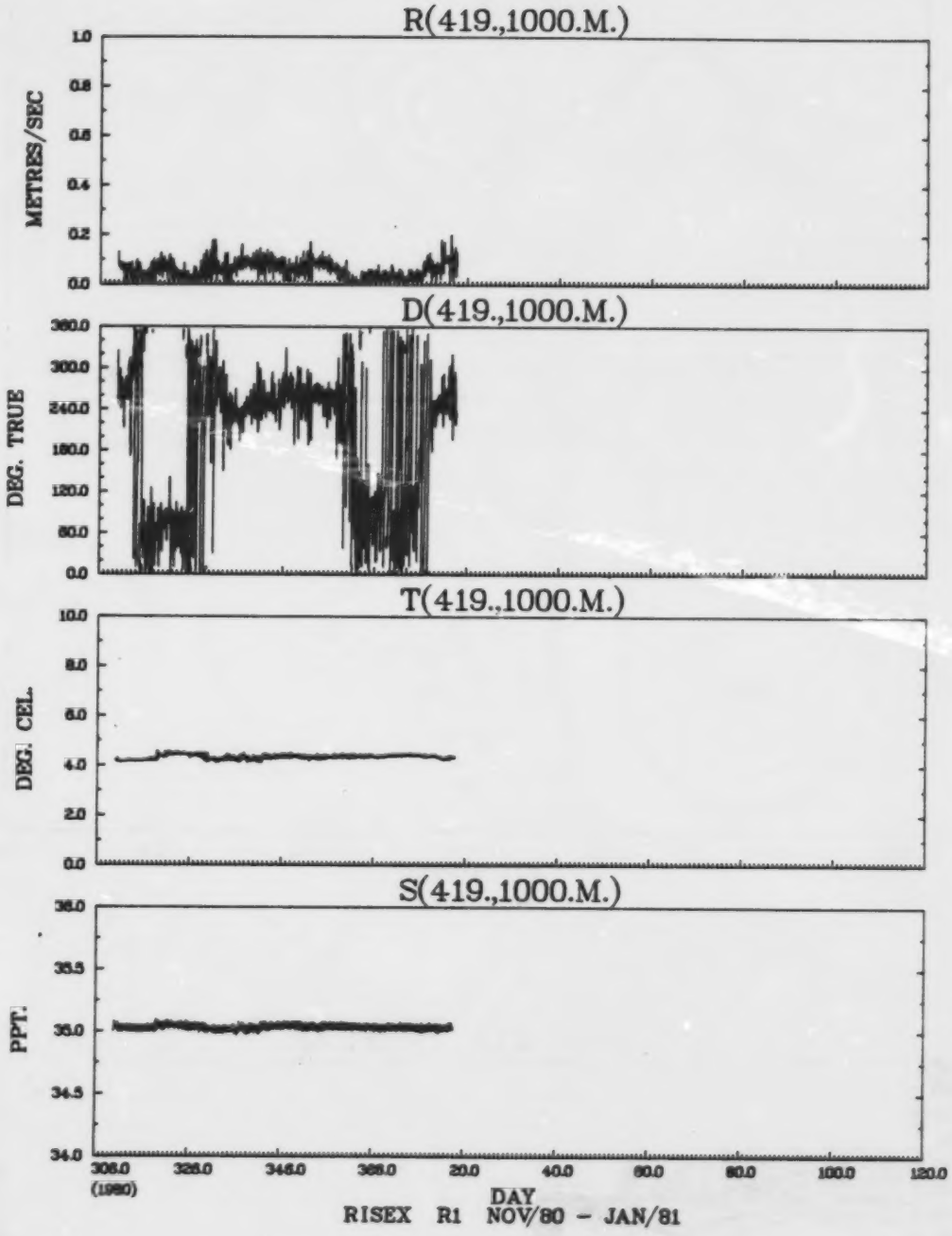
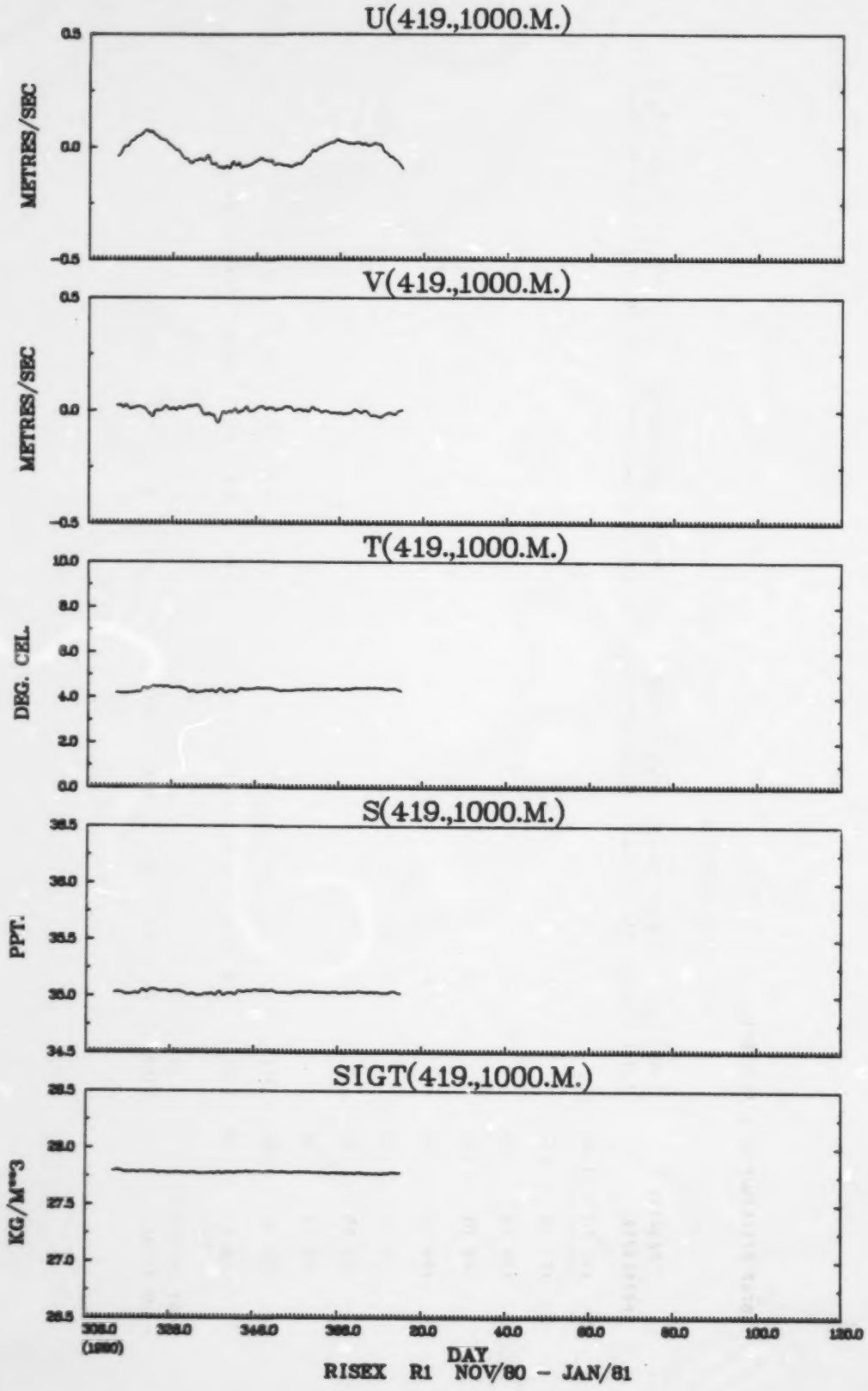


RISEX R1 NOV/80 - JAN/81


R(419.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(419.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(419.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(419.,1000.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - JAN/81


U(419.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(419.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(419.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(419.,1000.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(419.,1000.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - JAN/81

JOINT DISTRIBUTION (PERCENT)

D(419.,1000.M.) VS R(419.,1000.M.)

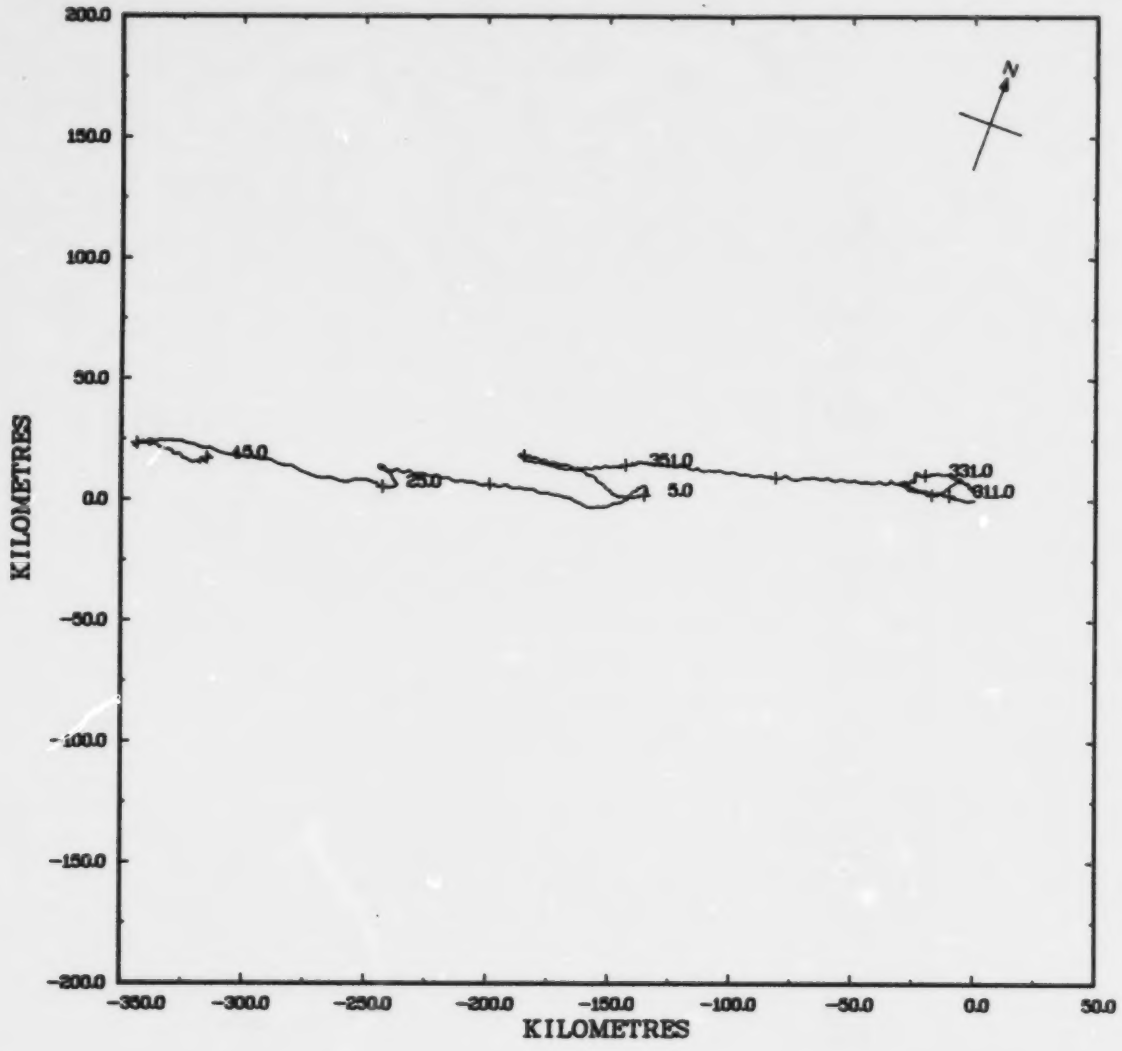
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30		*												
.10 TO	.20	221	*		.2	.5	.1			.2	3.3	6.0	2.1	.2	
-.00 TO	.10	1548	*	4.2	6.7	8.8	6.4	4.2	2.4	3.8	10.9	21.4	11.2	4.2	3.2
OUT OF RANGE		0	0												
SUB TOTAL		1769	0	74	121	163	116	75	43	71	251	484	236	79	57

JOINT DISTRIBUTION (PERCENT)

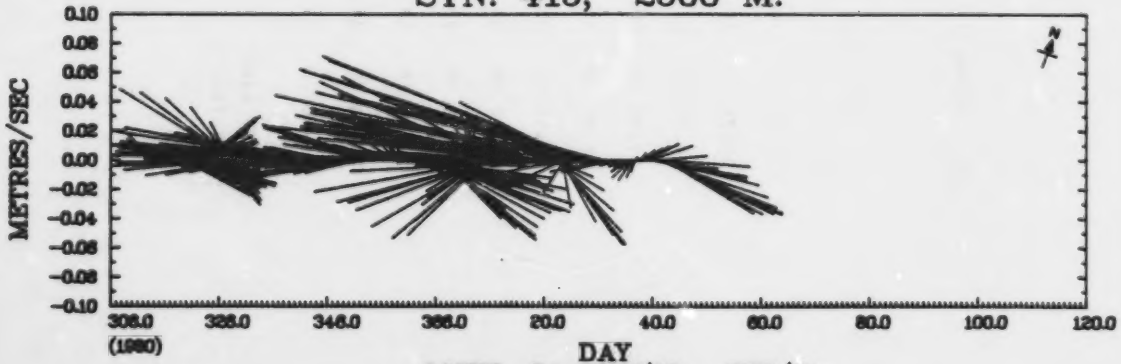
T(419.,1000.M.) VS S(419.,1000.M.)

DEG. CEL. PPT.	SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO 36.60		*									
36.20 TO 36.40		*									
36.00 TO 36.20		*									
35.80 TO 36.00		*									
35.60 TO 35.80		*									
35.40 TO 35.60		*									
35.20 TO 35.40		*									
35.00 TO 35.20	1729	*		97.7							
34.80 TO 35.00	40	*		2.3							
34.60 TO 34.80		*									
34.40 TO 34.60		*									
OUT OF RANGE	0	0									
SUB TOTAL	1769	0		1769							

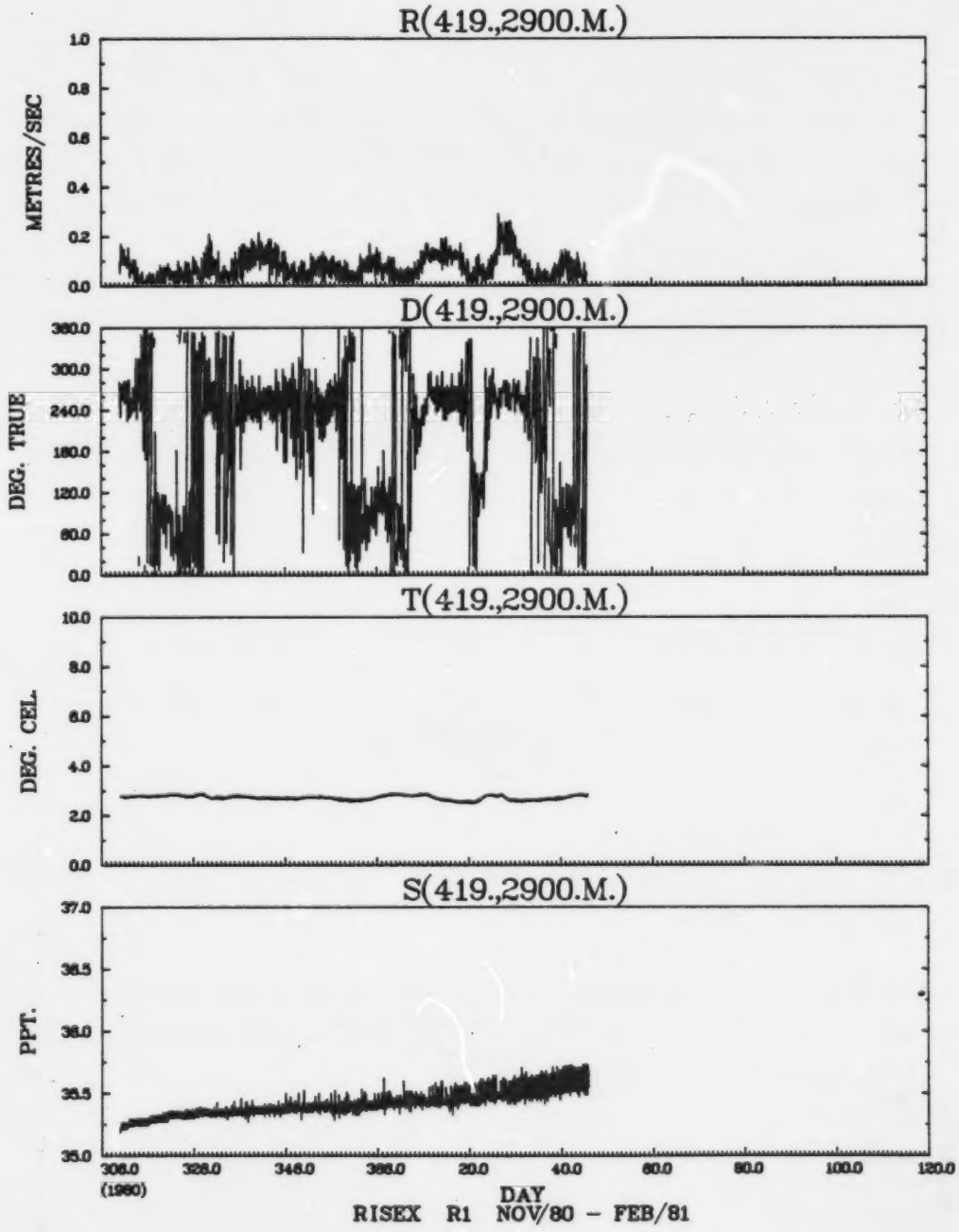
STN. 419, 2900 M.

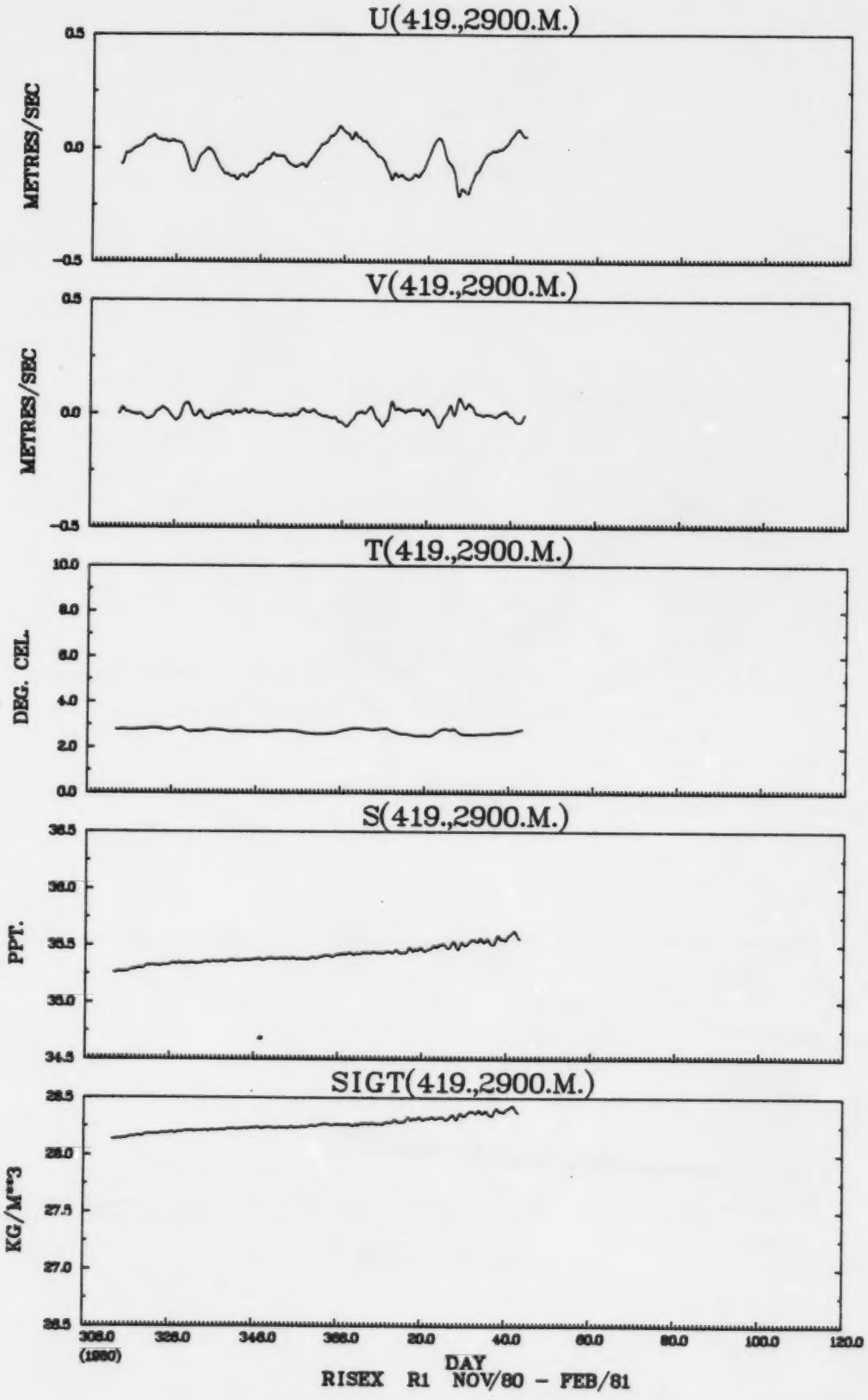


STN. 419, 2900 M.



RISEX R1 NOV/80 – FEB/81


R(419.,2900.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(419.,2900.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(419.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(419.,2900.M.)
PPT.
37.0
36.5
36.0
35.5
35.0
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - FEB/81


U(419.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
V(419.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
T(419.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(419.,2900.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(419.,2900.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R1 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(419.,2900.F.) VS R(419.,2900.M.)

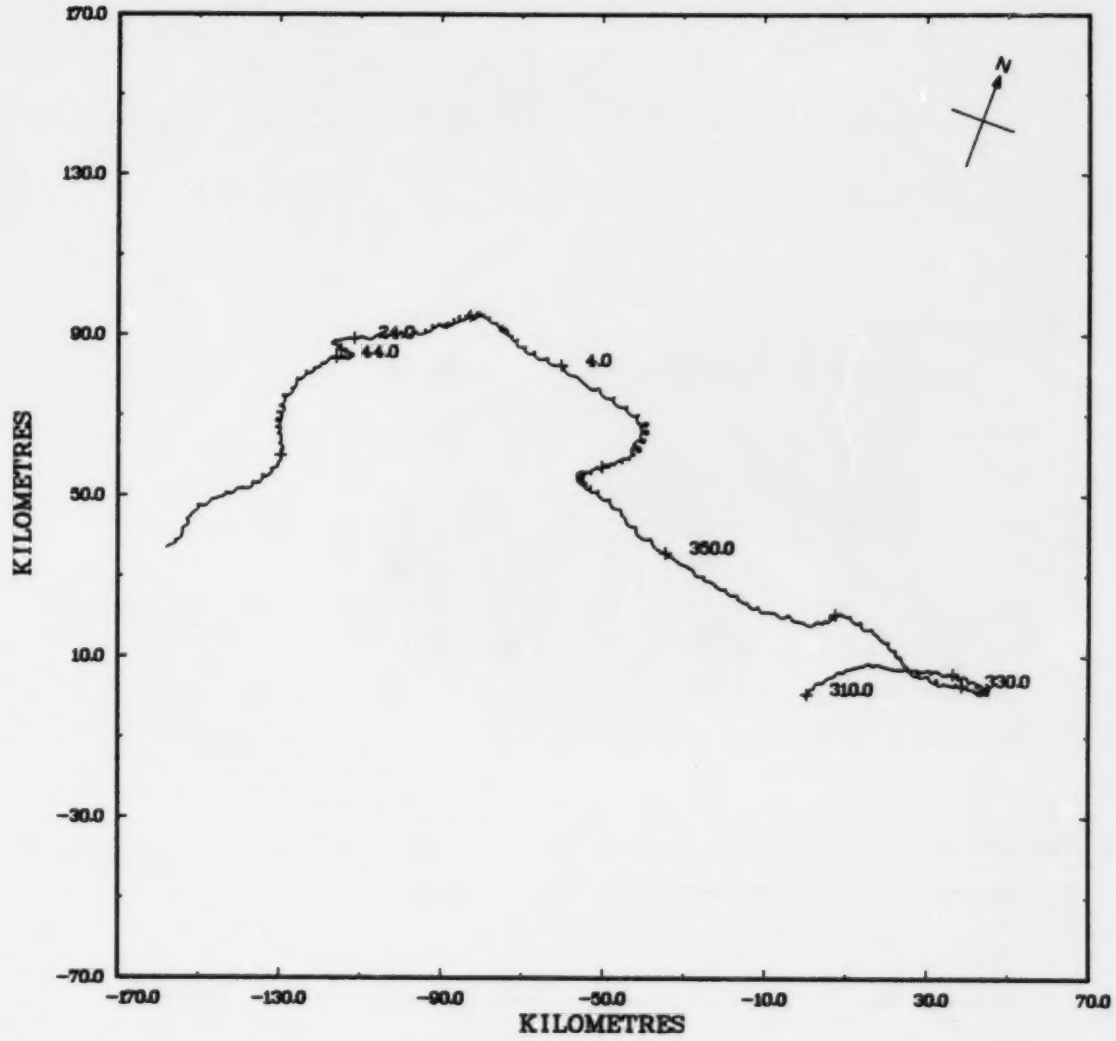
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	48	*								.0	1.1	.8		
.10 TO	.20	660	*	.1	.2	1.2	1.6	.5	.0	.2	3.4	13.0	6.2	.3	.1
-.00 TO	.10	1737	*	3.7	5.2	6.5	8.2	4.9	3.2	4.2	8.5	11.9	7.9	3.8	2.9
OUT OF RANGE		0	0												
SUB TOTAL		2445	0	93	133	190	241	134	79	108	294	638	363	99	73

JOINT DISTRIBUTION (PERCENT)

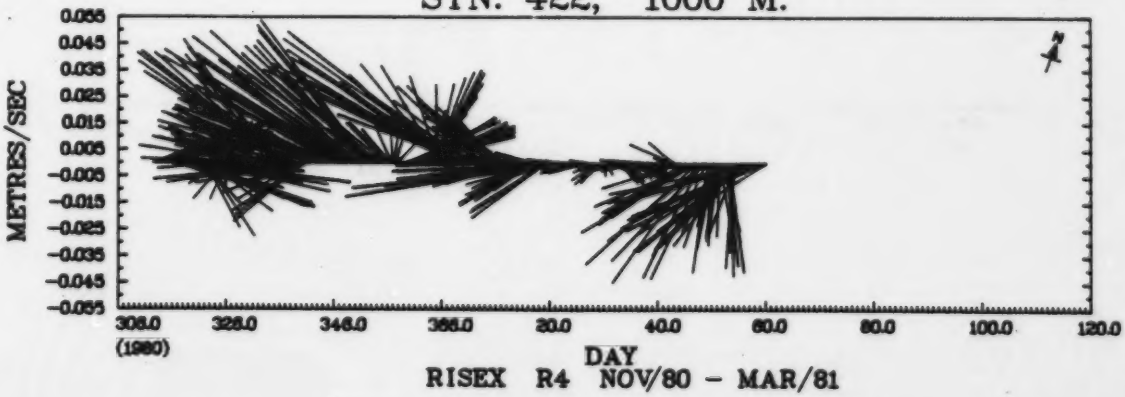
T(419.,2900.M.) VS S(419.,2900.M.)

DEG. CEL. PPT.	SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO 36.60		*									
36.20 TO 36.40		*									
36.00 TO 36.20		*									
35.80 TO 36.00		*									
35.60 TO 35.80	82	*	3.4								
35.40 TO 35.60	1146	*	46.9								
35.20 TO 35.40	1216	*	49.7								
35.00 TO 35.20	1	*	.0								
34.80 TO 35.00		*									
34.60 TO 34.80		*									
34.40 TO 34.60		*									
OUT OF RANGE	0	0									
SUB TOTAL	2445	0	2445								

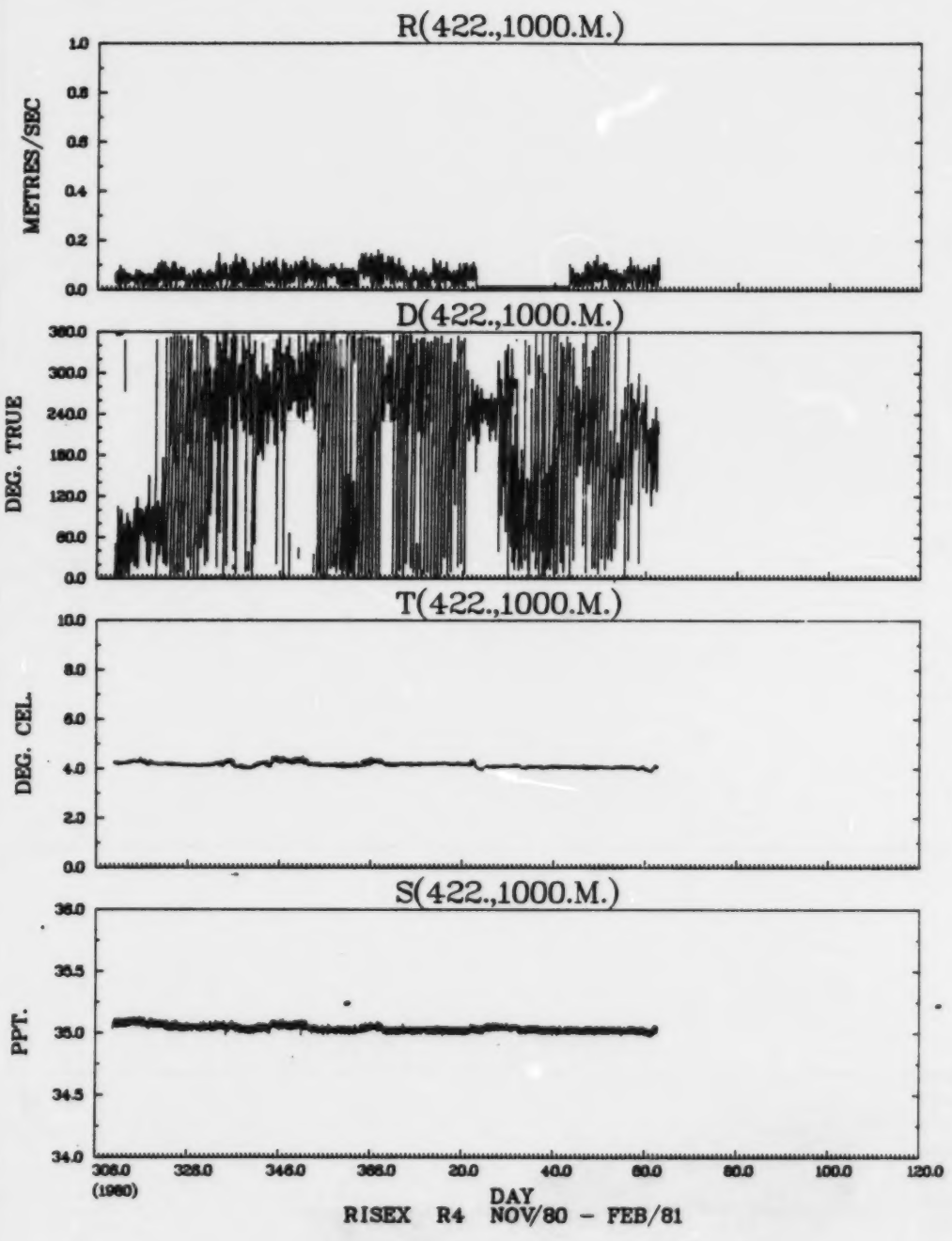
STN. 422, 1000 M.

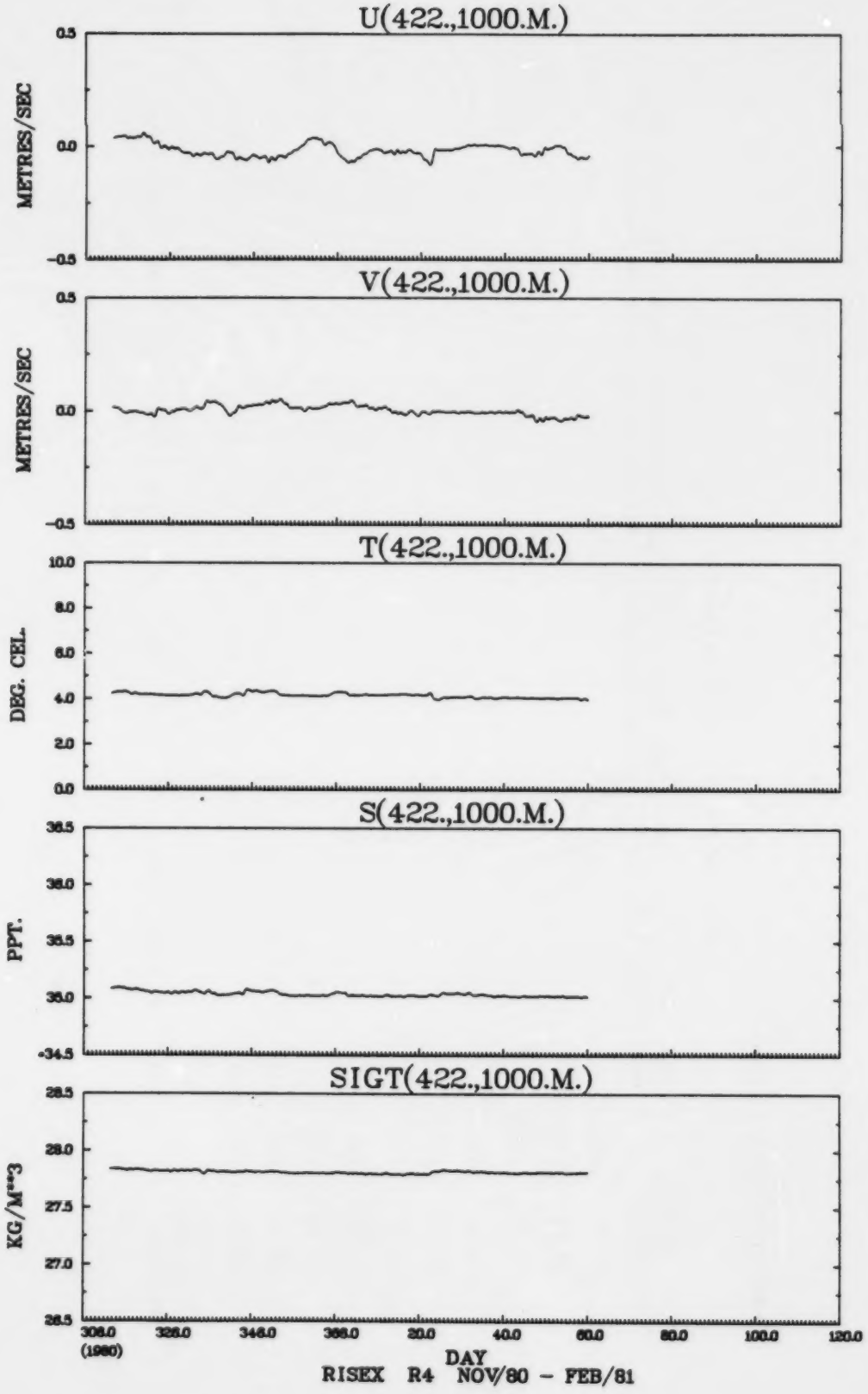


STN. 422, 1000 M.



RISEX R4 NOV/80 - MAR/81


R(422.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(422.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(422.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(422.,1000.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R4 NOV/80 - FEB/81


U(422.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(422.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(422.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(422.,1000.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(422.,1000.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R4 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(422.,1000.M.) VS R(422.,1000.M.)

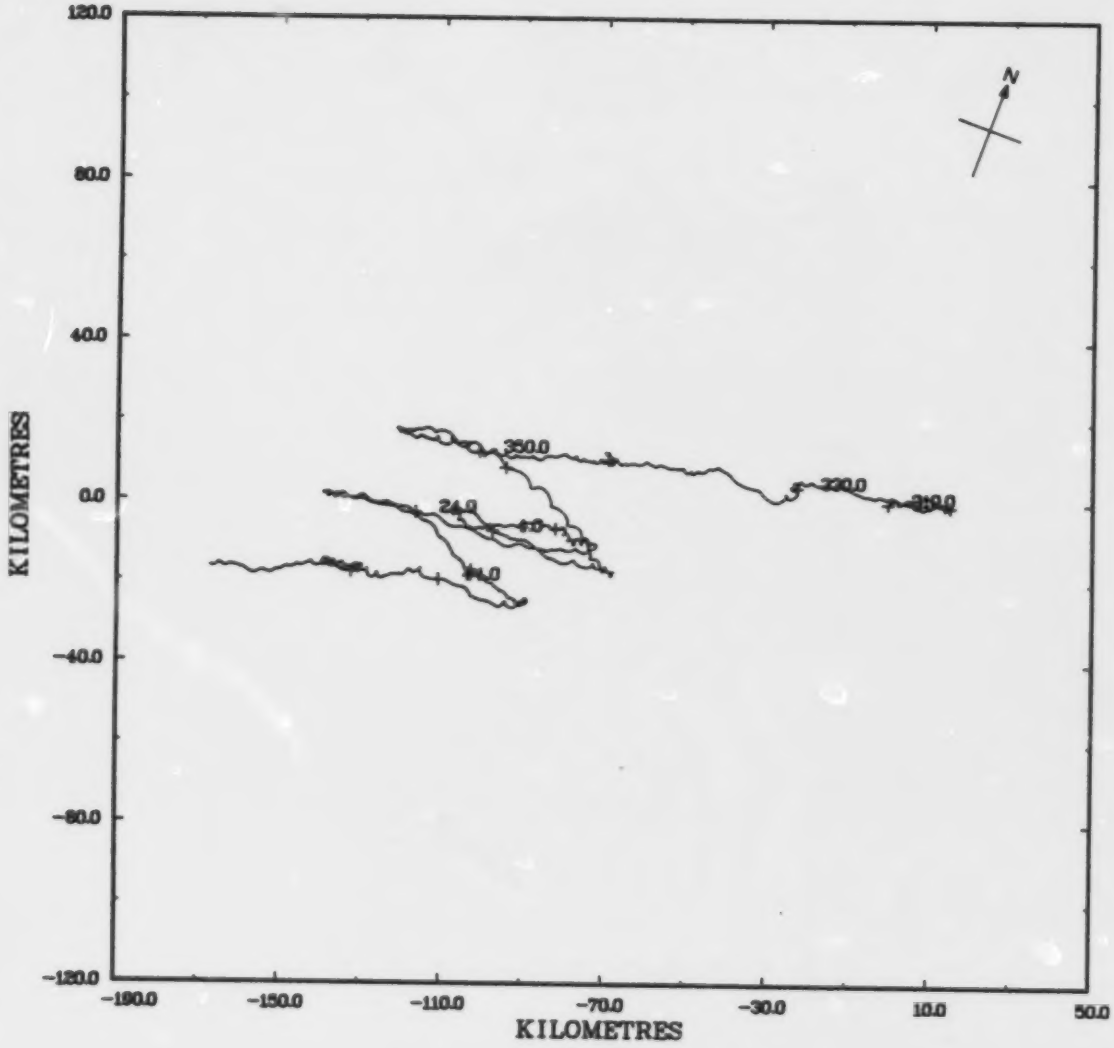
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30		*												
.10 TO	.20	217	*	.2	.2	.2	.1	.1	.2	.7	.7	1.1	2.1	1.2	.5
-.00 TO	.10	2637	*	5.4	6.2	7.5	6.0	5.4	7.0	7.4	12.1	13.5	10.0	7.1	4.9
OUT OF RANGE		0	0												
SUB TOTAL		2854	0	160	183	220	174	159	205	231	364	417	346	239	156

JOINT DISTRIBUTION (PERCENT)

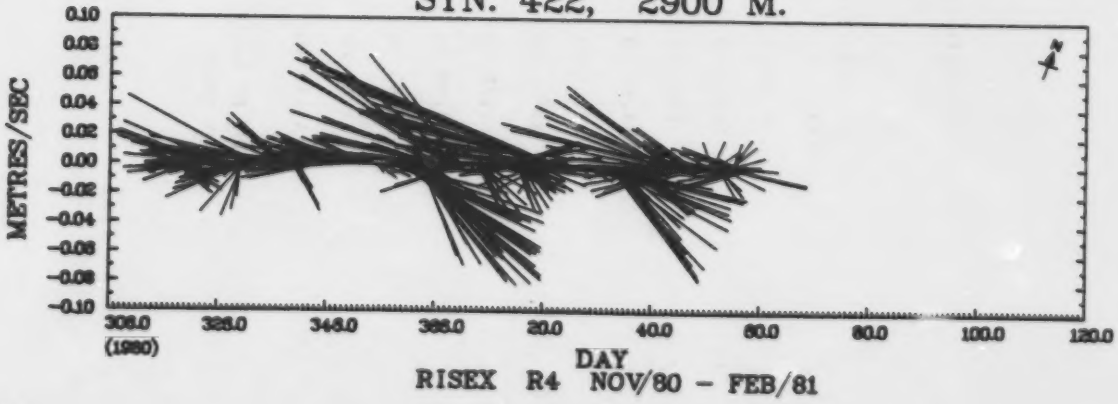
T(422.,1000.M.) VS S(422.,1000.M.)

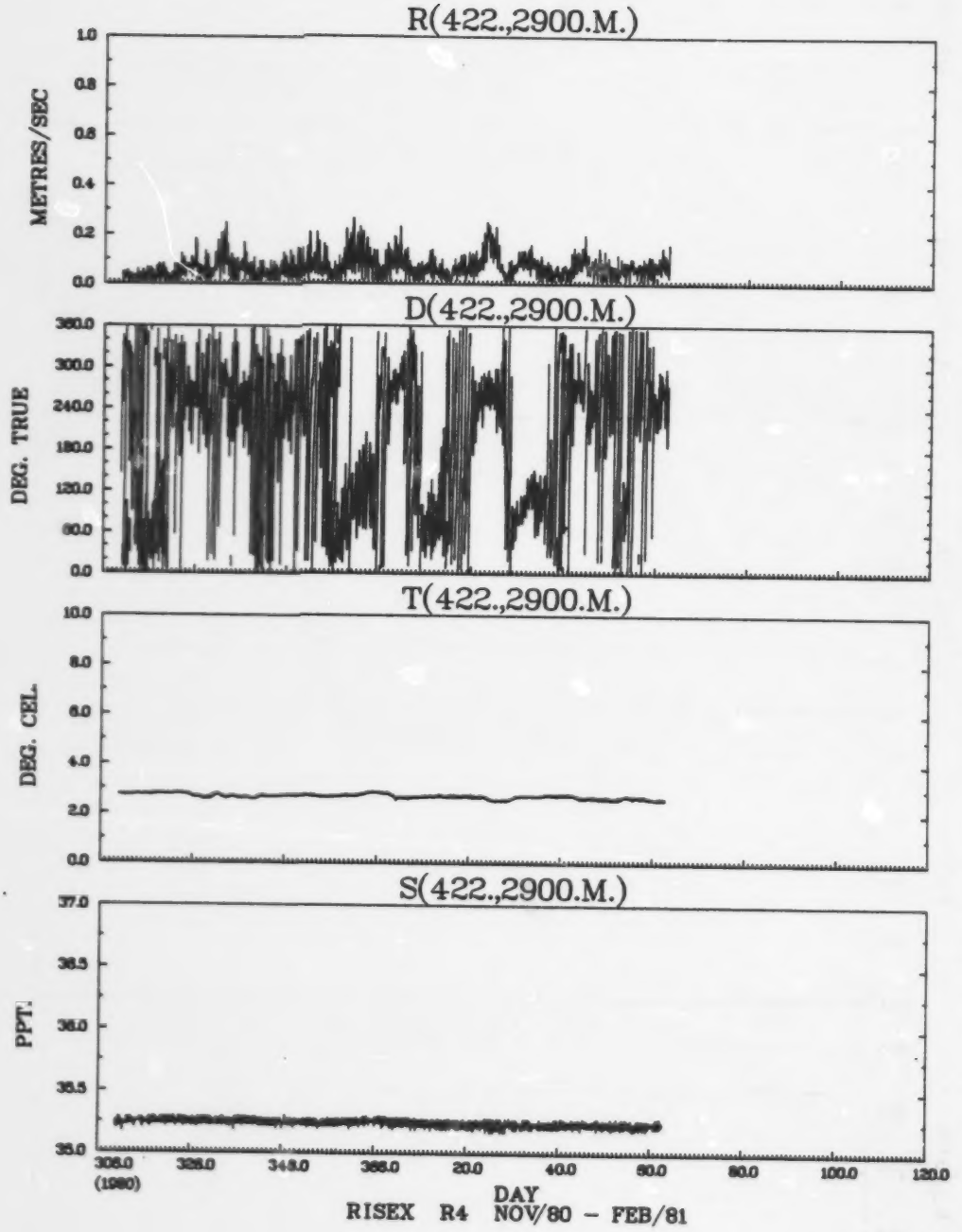
DEG. CEL. / PPT.		SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40		*									
35.00 TO	35.20	2822	*	98.9								
34.80 TO	35.00	32	*	1.1								
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUM TOTAL		2854	0	2854								

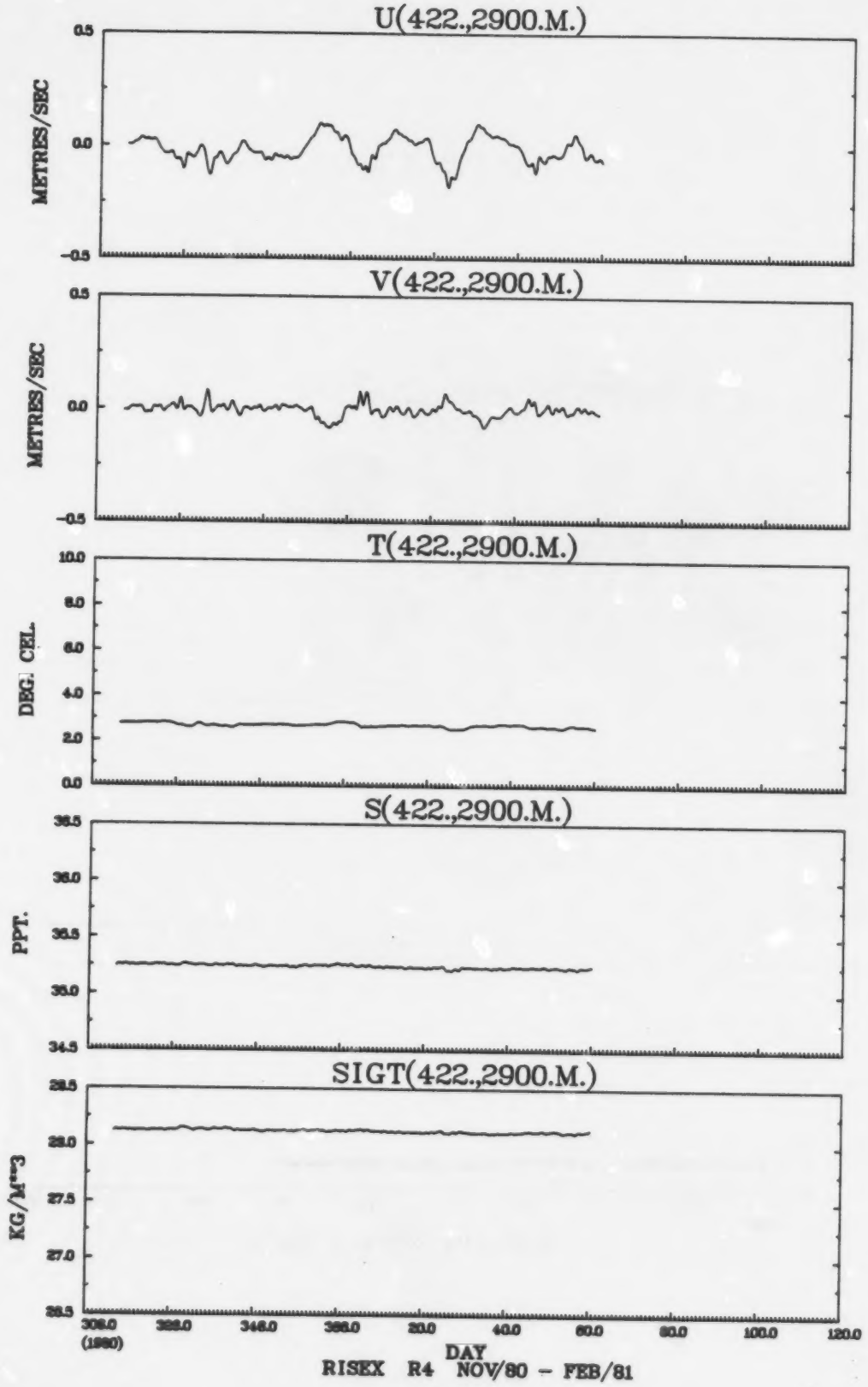
STN. 422, 2900 M.



STN. 422, 2900 M.




R(422.,2900.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(422.,2900.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(422.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(422.,2900.M.)
PPT.
37.0
36.5
36.0
35.5
35.0
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R4 NOV/80 - FEB/81


U(422.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
V(422.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
T(422.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(422.,2900.M.)
PPT.
35.5
35.0
34.5
SIGT(422.,2900.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R4 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(422.,2900.M.) VS R(422.,2900.M.)

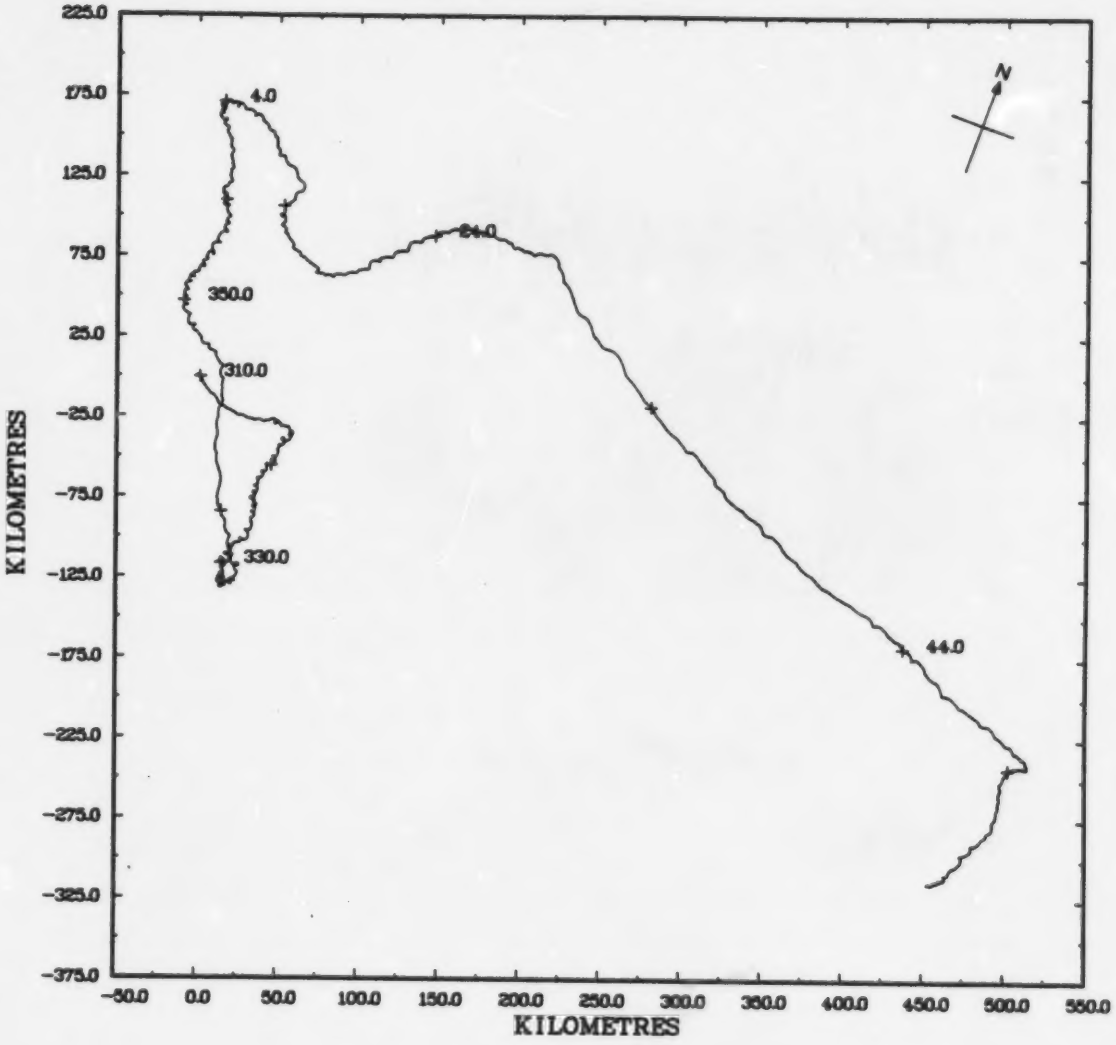
DEGREES METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	37	*		.0	.1	.2	.1				.3	.6		
.10 TO	.20	472	*	.1	.4	1.5	1.6	1.4	.2	.5	1.8	3.8	4.4	.7	.1
-.00 TO	.10	2349	*	3.2	6.0	8.7	7.3	5.8	4.6	4.8	8.9	12.6	10.0	5.2	4.1
OUT OF RANGE		0	0												
SUB TOTAL		2854	0	95	182	292	262	209	136	180	306	477	428	169	118

JOINT DISTRIBUTION (PERCENT)

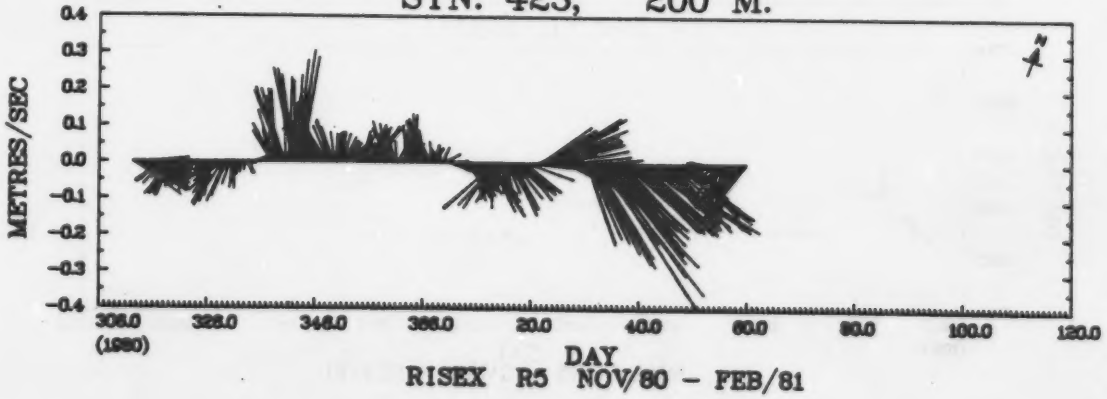
T(422.,2900.M.) VS S(422.,2900.M.)

DEG. CEL. / PPT.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40	2837	*	99.4								
35.00 TO	35.20	17	*	.6								
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2854	0	2854								

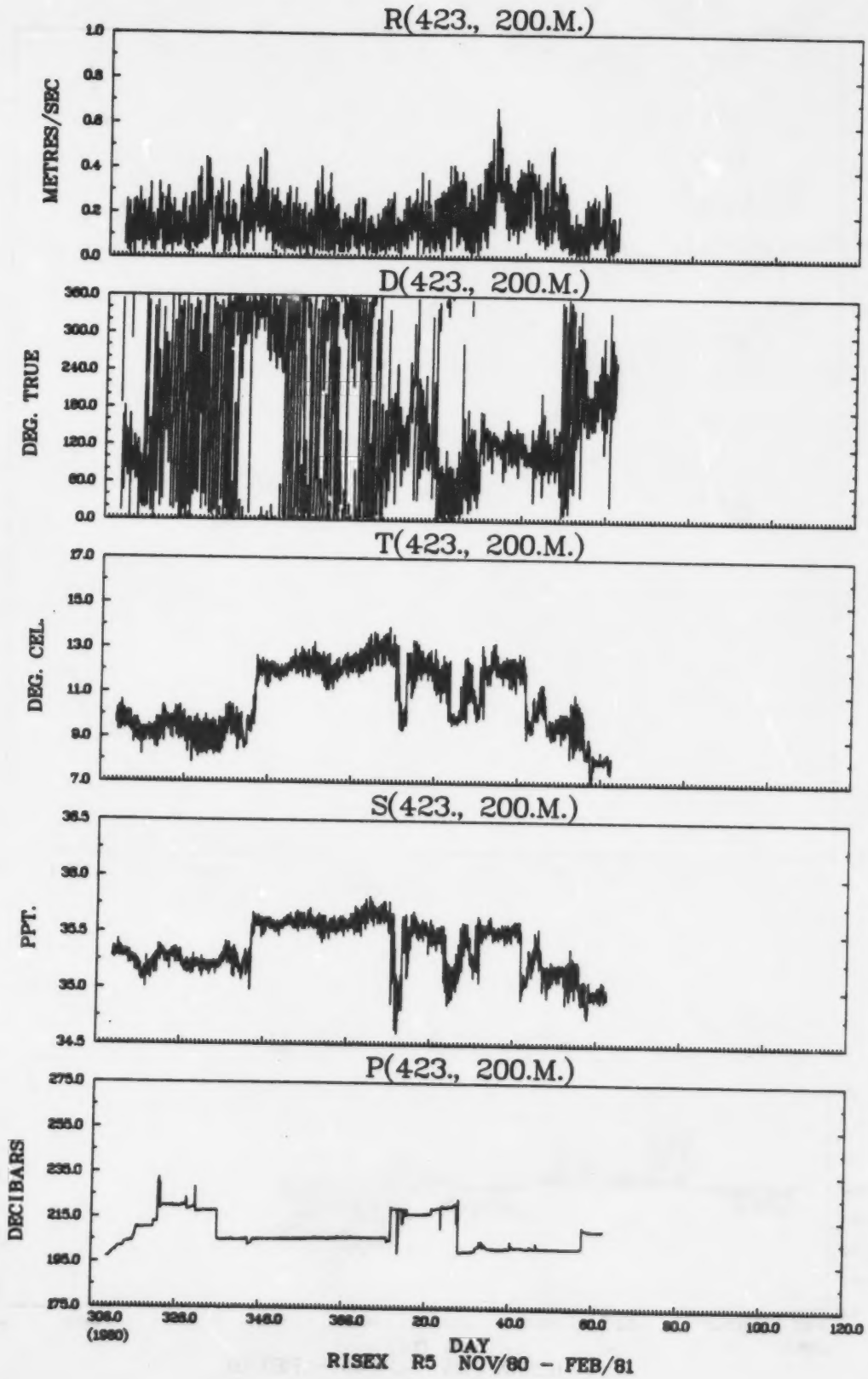
STN. 423, 200 M.

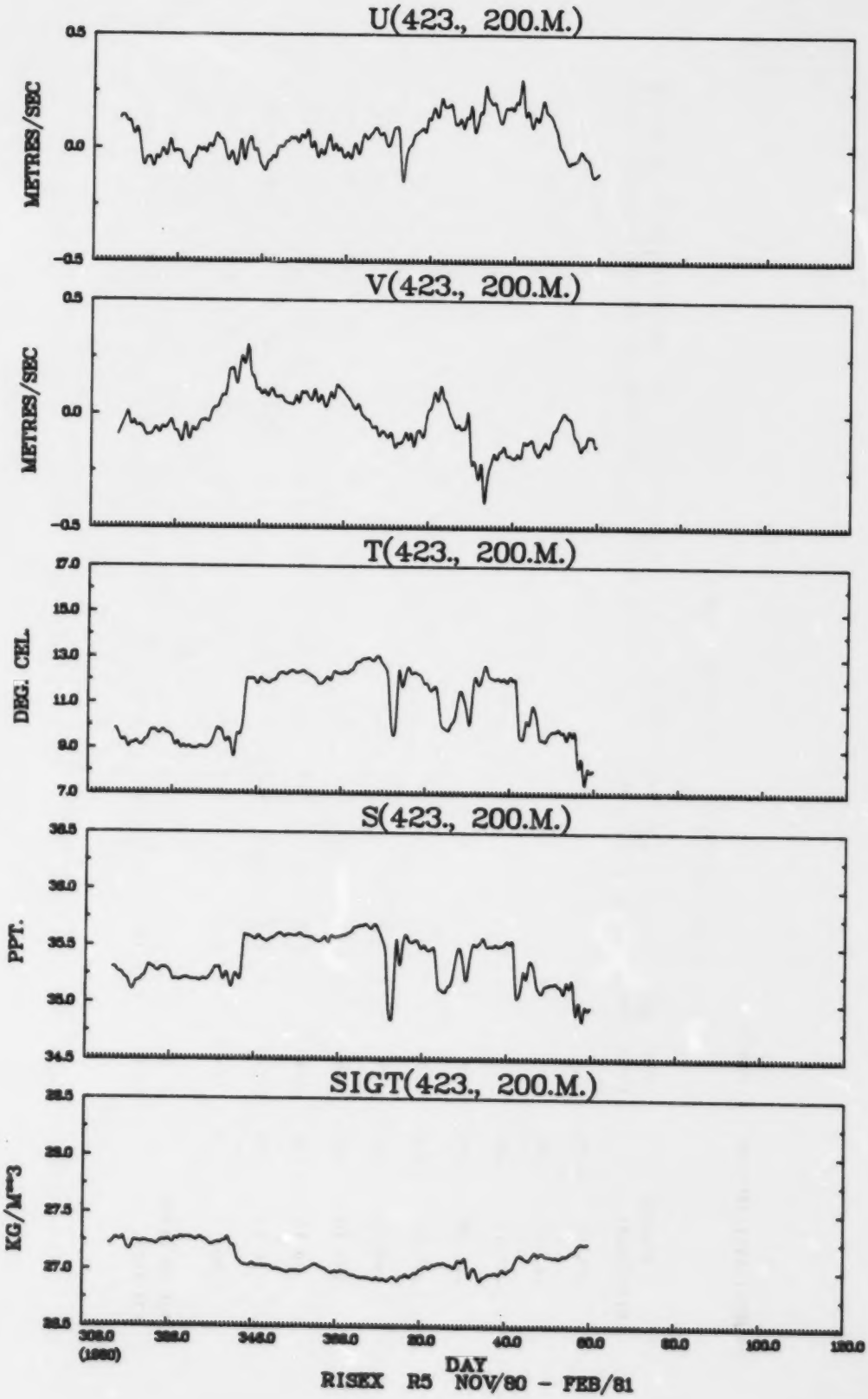


STN. 423, 200 M.



RISEX R5 NOV/80 – FEB/81


R(423., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(423., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(423., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(423., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
P(423., 200.M.)
DECIBARS
275.0
255.0
235.0
215.0
195.0
175.0
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81


U(423., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(423., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(423., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(423., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(423., 200.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(423., 200.M.) VS R(423., 200.M.)

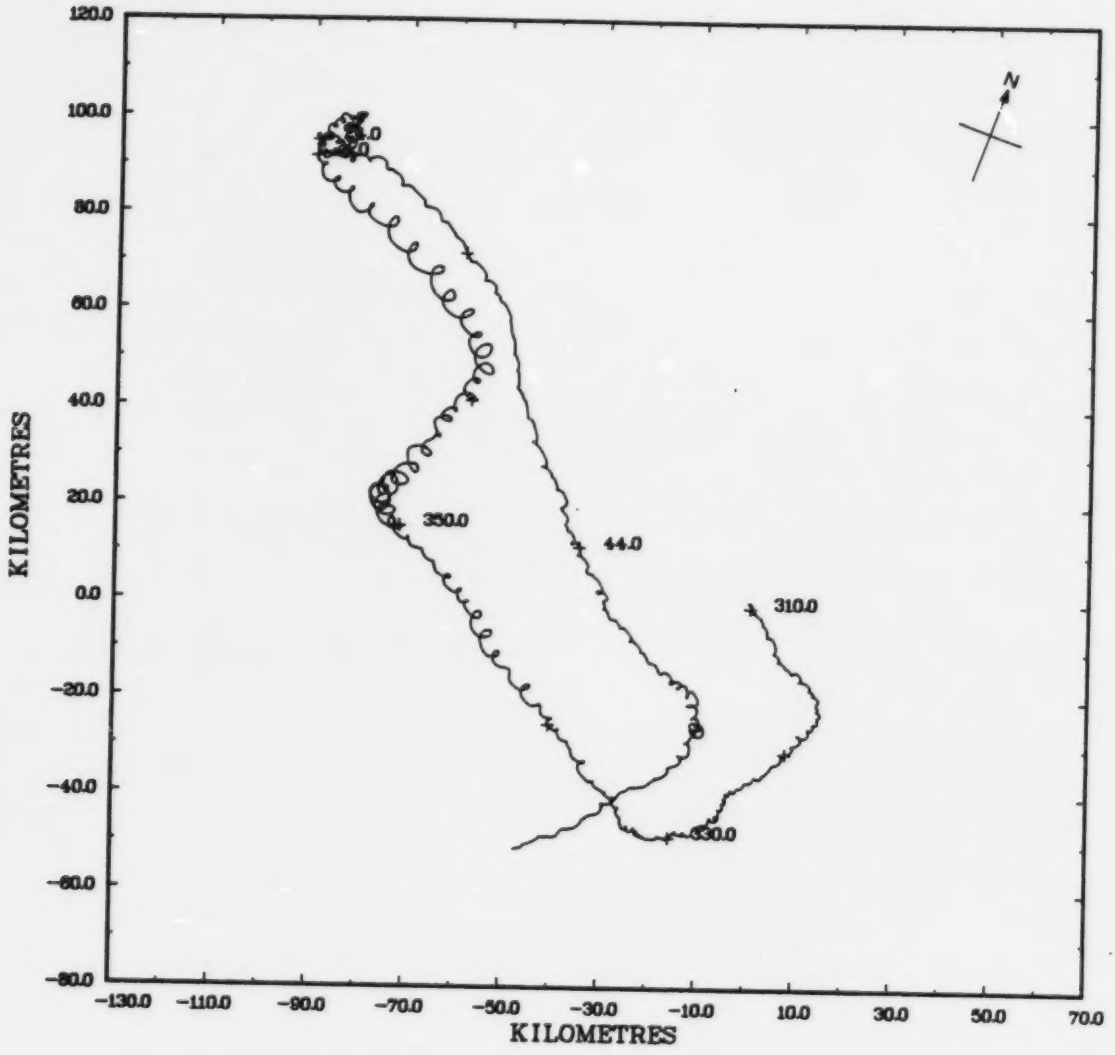
DEGREES METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70	2	*					.1							
.50 TO	.60	10	*				.1	.3							
.40 TO	.50	36	*	.0		.1	.4	.6	.0						.2
.30 TO	.40	226	*	.4	.4	.5	3.0	2.0	.3	.3	.1	.1	.0	.3	.5
.20 TO	.30	634	*	1.2	.9	2.3	5.0	3.7	2.0	1.1	.6	.6	.9	1.4	2.5
.10 TO	.20	1217	*	2.8	3.1	4.3	5.9	4.9	4.5	2.8	2.2	2.3	2.2	3.3	4.2
-.00 TO	.10	728	*	2.4	2.4	1.8	2.5	2.3	2.6	2.0	1.9	1.9	2.0	1.7	1.9
OUT OF RANGE		0	0												
SUB TOTAL		2853	0	194	195	257	481	395	267	179	138	140	150	193	264

JOINT DISTRIBUTION (PERCENT)

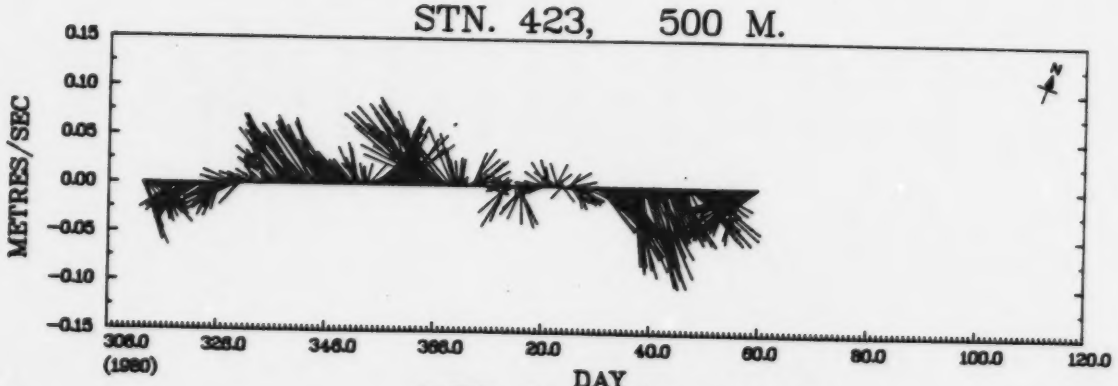
T(423.. 200.M.) VS S(423.. 200.M.)

PPT. DEG. CEL.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80	566	*						10.3	2.6		
35.40 TO	35.60	964	*					.3	39.3	.2		
35.20 TO	35.40	825	*				2.9	24.3	1.7			
35.00 TO	35.20	524	*				4.4	14.0	.0			
34.80 TO	35.00	147	*				4.7	1.2				
34.60 TO	34.80	7	*				.1	.1				
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2893	0				344	1138	1293	78		

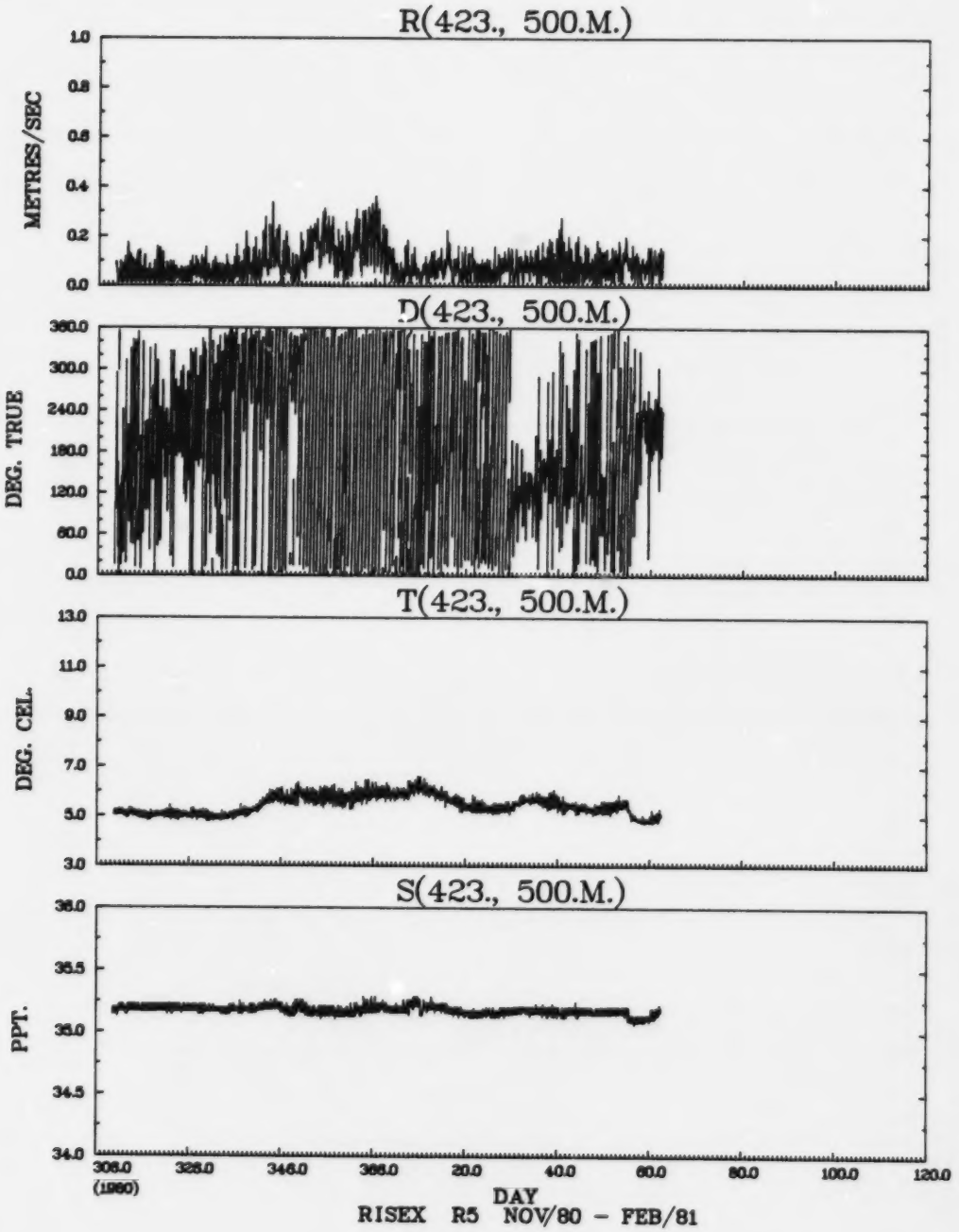
STN. 423, 500 M.

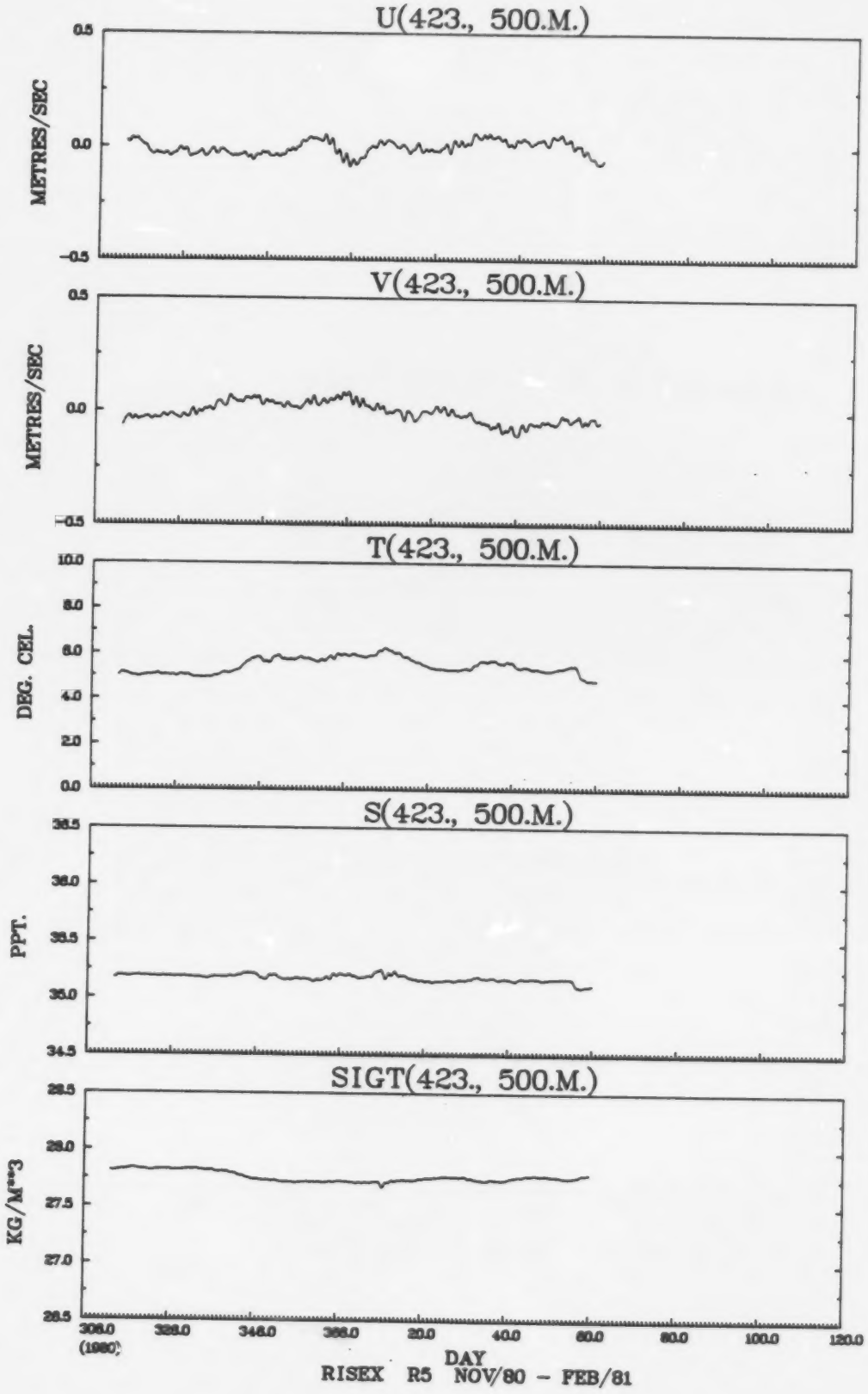


STN. 423, 500 M.



RISEX R5 NOV/80 – MAR/81


R(423., 500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(423., 500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(423., 500.M.)
DEG. CEL.
13.0
11.0
9.0
7.0
5.0
3.0
S(423., 500.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81


U(423., 500.M.)
METRES/SEC
0.5
0.0
-0.5
V(423., 500.M.)
METRES/SEC
0.5
0.0
-0.5
T(423., 500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(423., 500.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(423., 500.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(423., 500.M.) VS R(423., 500.M.)

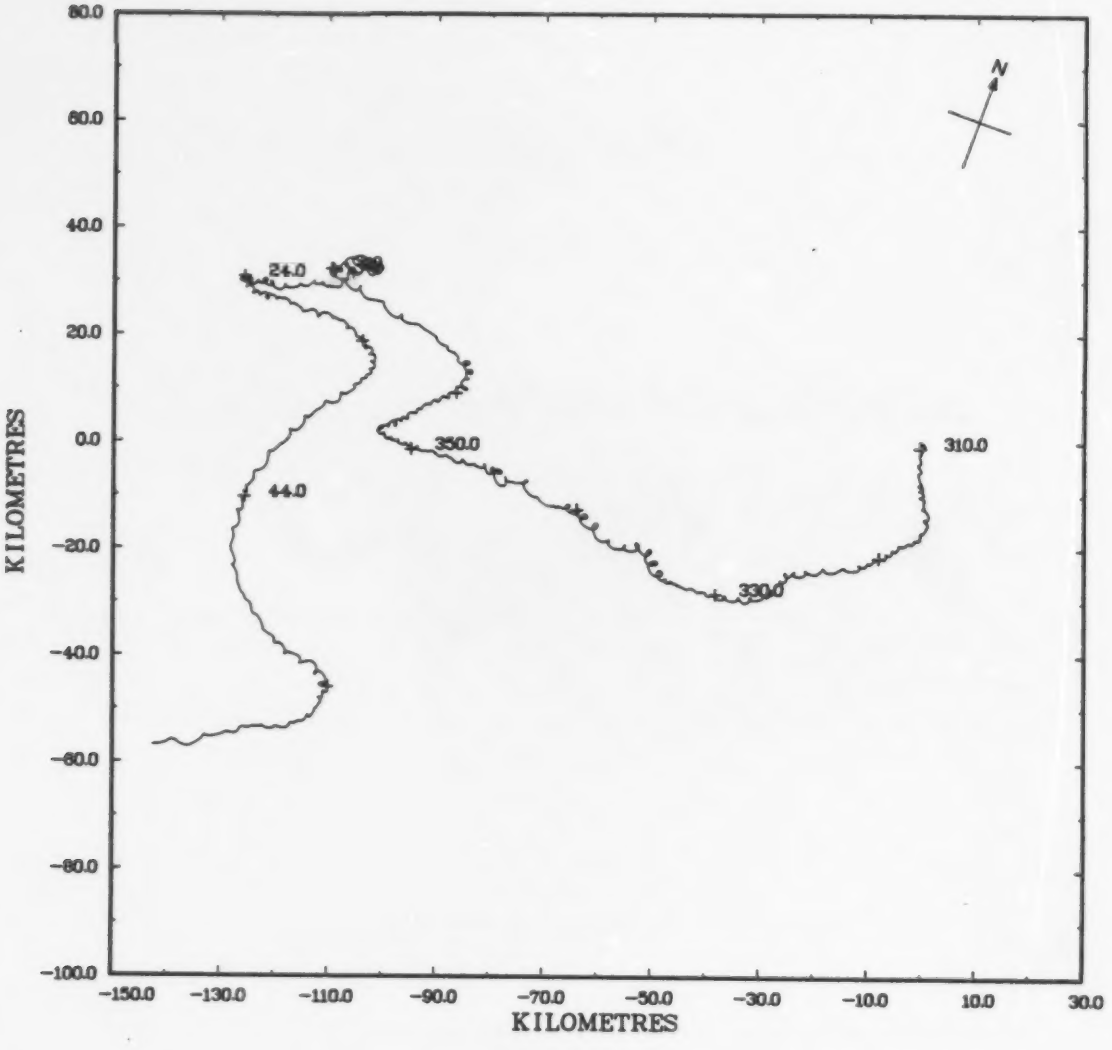
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	12	*									.0	.2	.1	.0
.20 TO	.30	152	*	.5	.3	.2	.2	.4	.0	.1	.2	.7	1.0	.9	.8
.10 TO	.20	763	*	1.7	1.5	1.8	3.0	4.2	2.3	1.8	2.2	2.3	2.3	1.7	1.9
-.00 TO	.10	1926	*	2.7	4.3	5.4	6.2	8.1	6.9	7.8	6.5	6.3	5.3	4.2	3.8
OUT OF RANGE		0	0												
SUB TOTAL		2853	0	140	174	211	267	362	264	276	255	268	252	200	184

JOINT DISTRIBUTION (PERCENT)

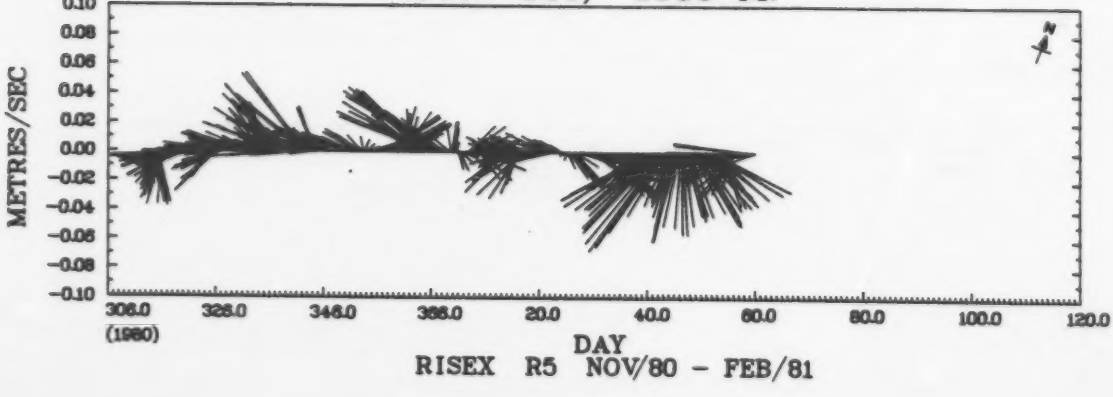
T(423., 500.M.) VS S(423., 500.M.)

DEG. CEL. PPT.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40	456	*		.5	15.5						
35.00 TO	35.20	2397	*		12.2	71.9						
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2853	0		362	2491						

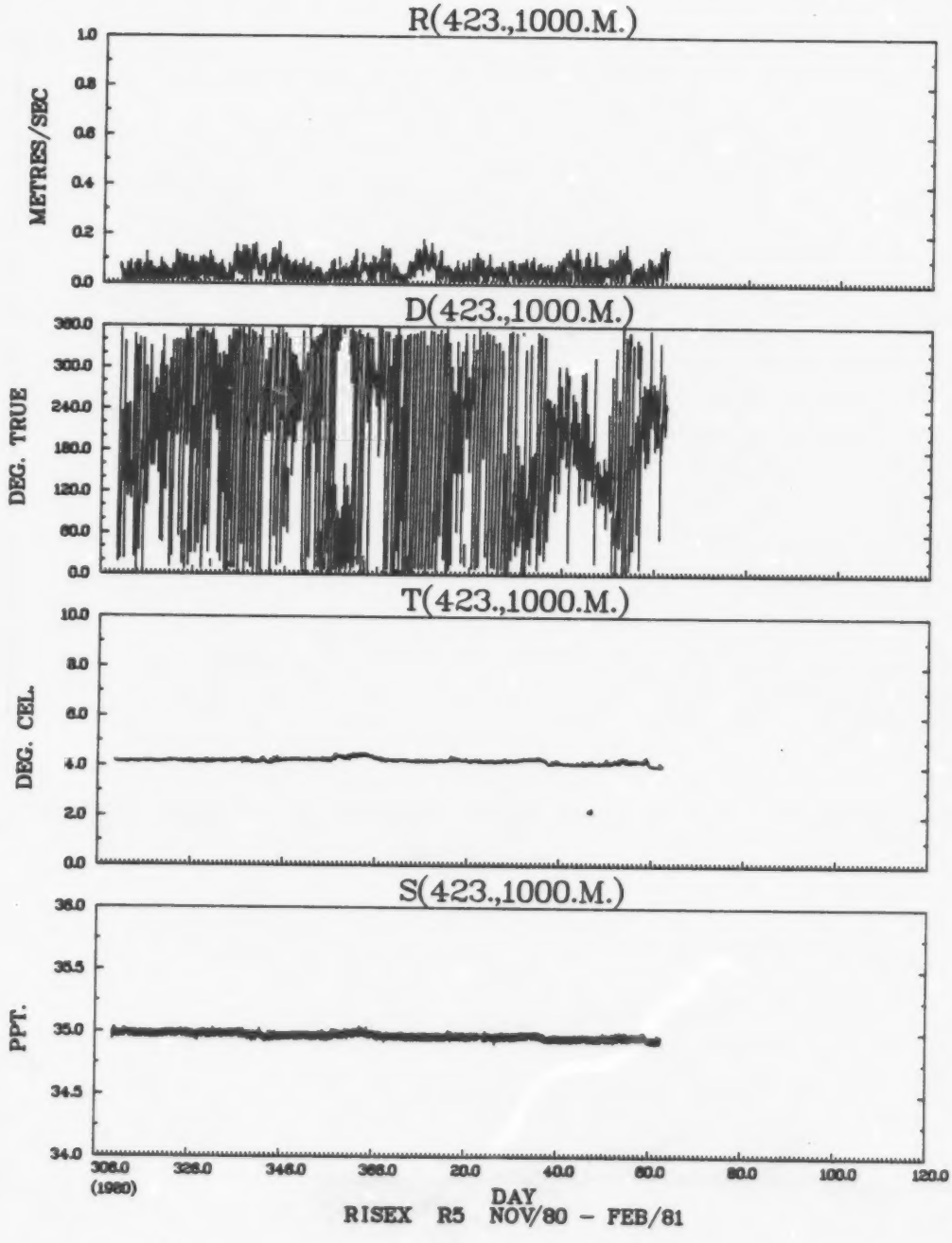
STN. 423, 1000 M.

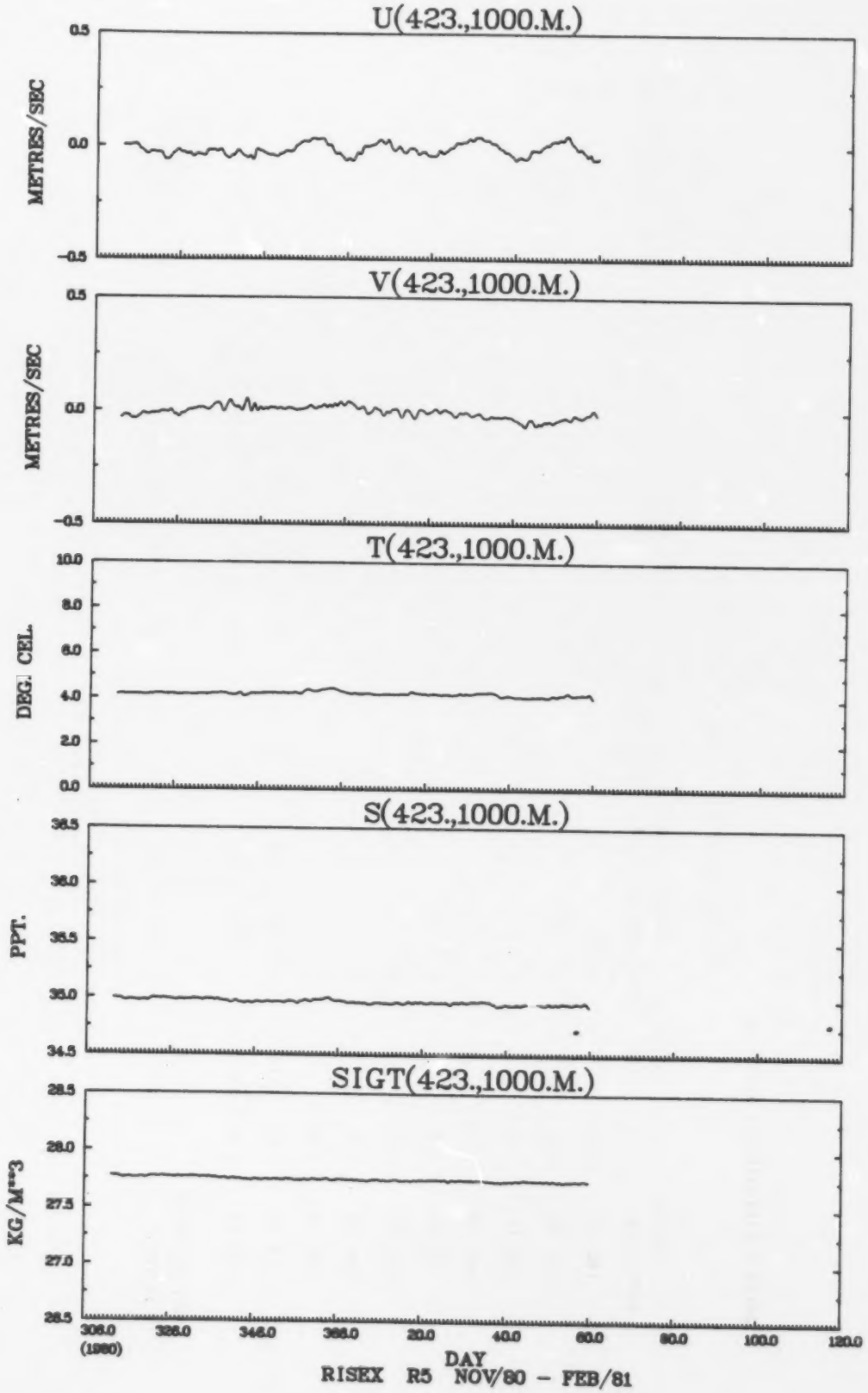


STN. 423, 1000 M.



RISEX R5 NOV/80 - FEB/81


R(423.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(423.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(423.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(423.,1000.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81


U(423.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(423.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(423.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(423.,1000.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(423.,1000.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
306.0
(1980)
326.0
346.0
366.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(423.,1000.M.) VS R(423.,1000.M.)

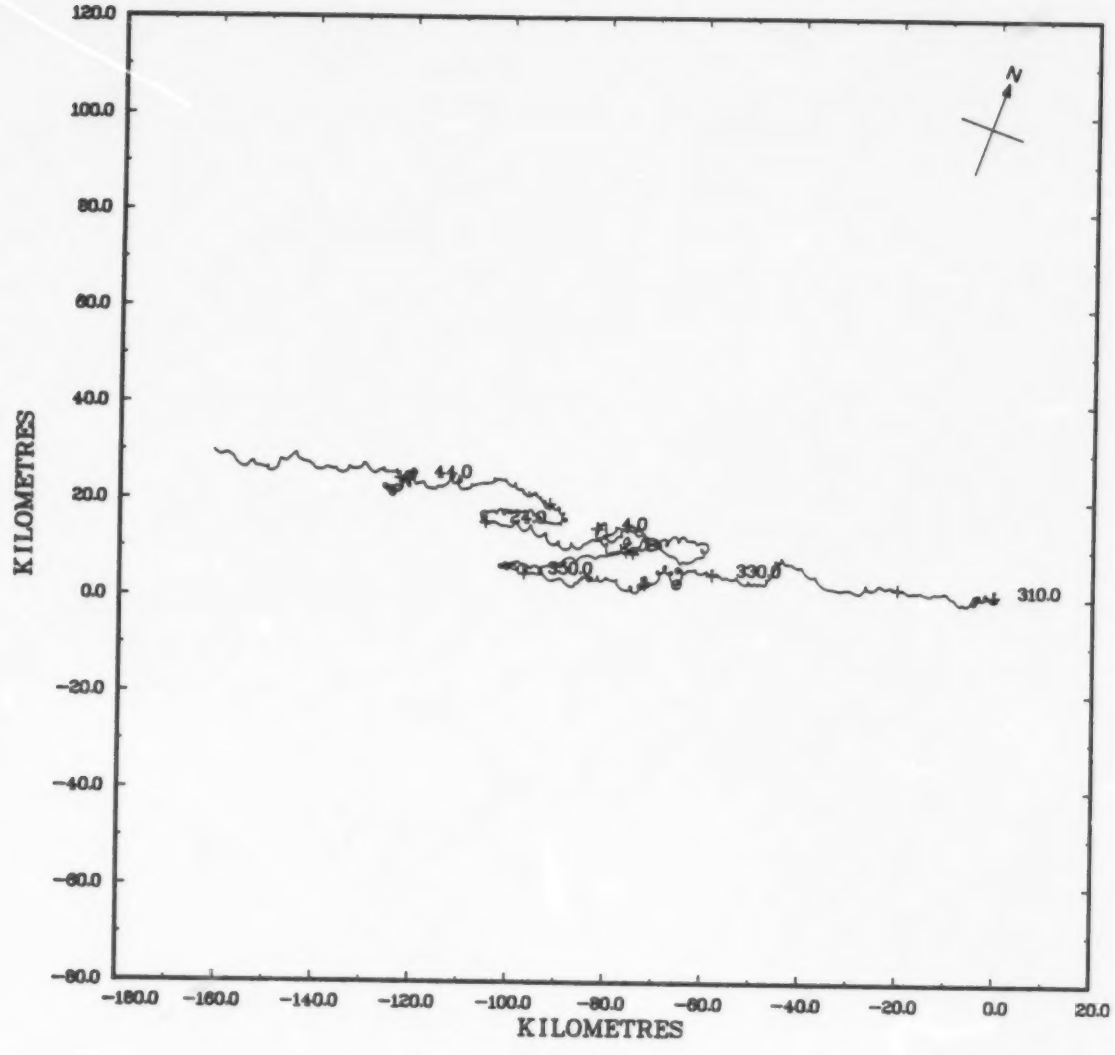
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30		*												
.10 TO	.20	310	*	.3	.4	.4	.8	.7	.8	.9	.9	2.1	1.8	1.3	.6
-.00 TO	.10	2543	*	4.9	4.4	5.0	6.7	8.5	9.0	8.4	11.0	11.1	9.8	6.2	4.8
OUT OF RANGE		0	0												
SUB TOTAL		2853	0	133	136	154	212	261	280	267	341	375	330	212	152

JOINT DISTRIBUTION (PERCENT)

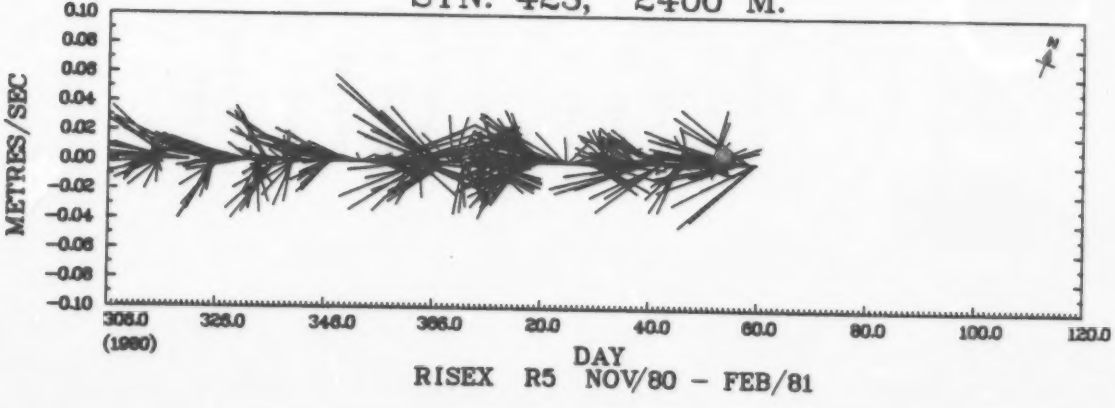
T(423.,1000.M.) VS S(423.,1000.M.)

DEG. CEL. PPT.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40		*									
35.00 TO	35.20	152	*	5.3								
34.80 TO	35.00	2701	*	94.7								
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2853	0	2853								

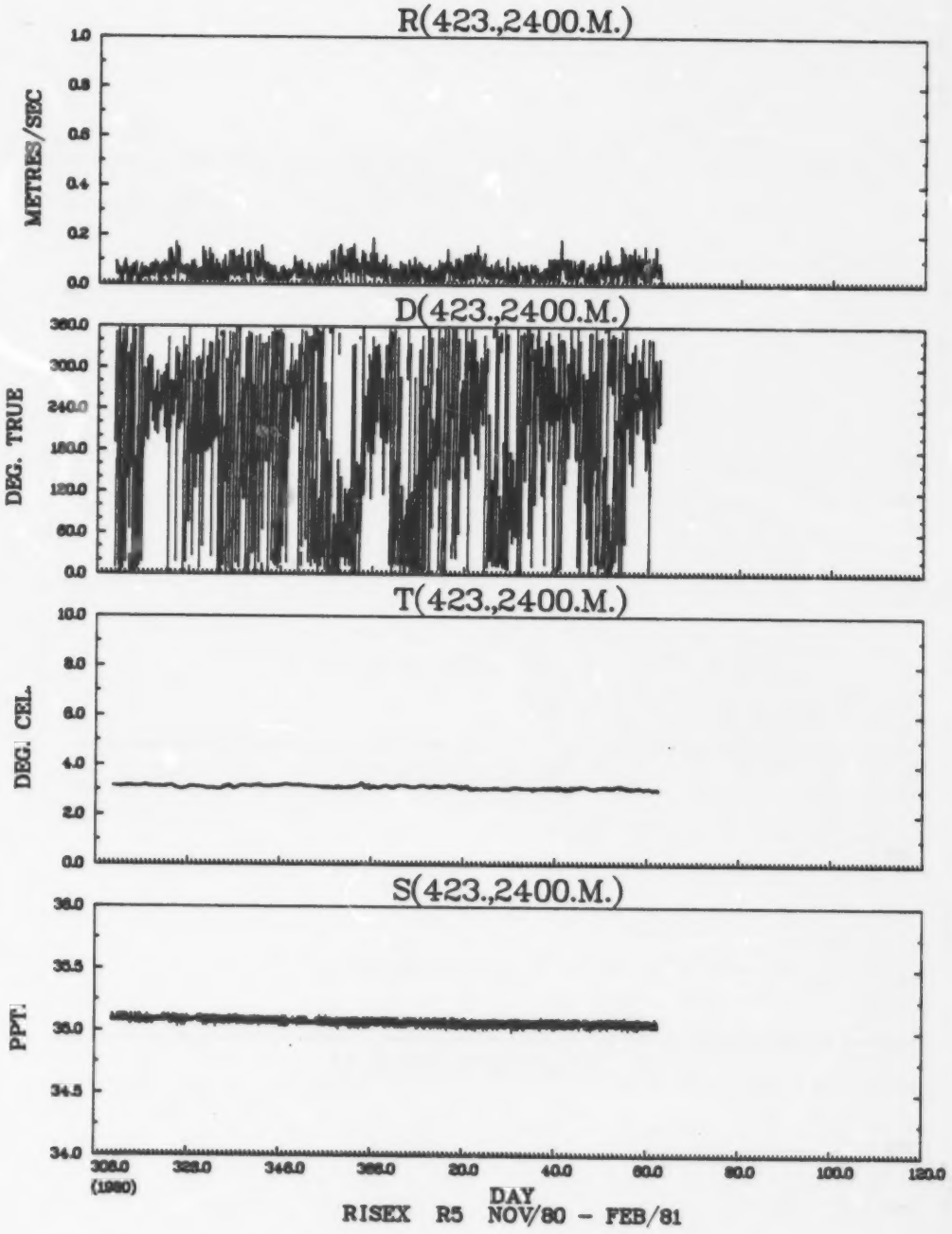
STN. 423, 2400 M.

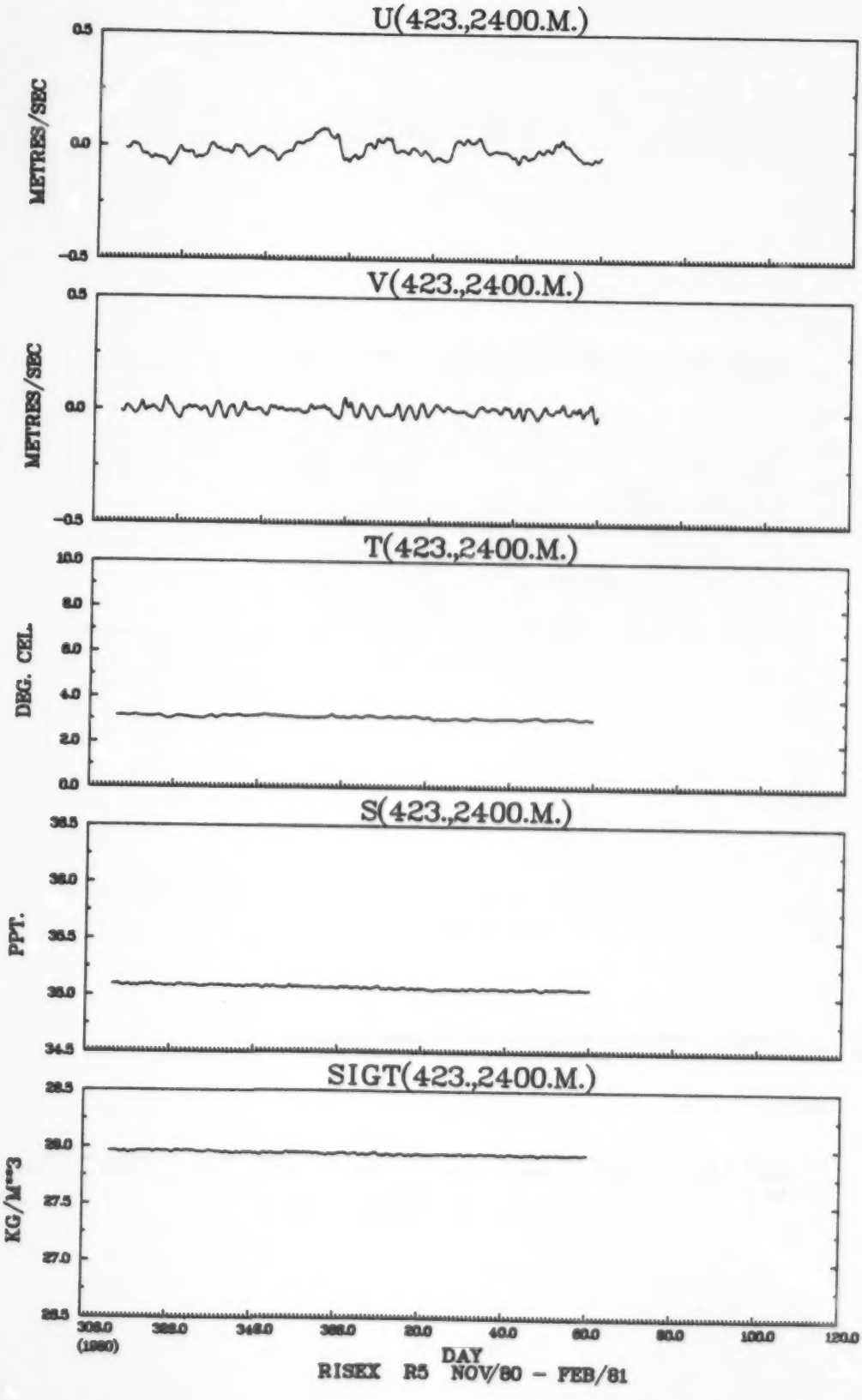


STN. 423, 2400 M.



RISEX R5 NOV/80 – FEB/81


R(423.,2400.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(423.,2400.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(423.,2400.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(423.,2400.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81


U(423.,2400.M.)
METRES/SEC
0.5
0.0
-0.5
V(423.,2400.M.)
METRES/SEC
0.5
0.0
-0.5
T(423.,2400.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(423.,2400.M.)
PPT.
38.5
38.0
35.5
35.0
34.5
SIGT(423.,2400.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
308.0
(1980)
328.0
348.0
368.0
20.0
40.0
60.0
80.0
100.0
120.0
DAY
RISEX R5 NOV/80 - FEB/81

JOINT DISTRIBUTION (PERCENT)

D(423.,2400.M.) VS R(423.,2400.M.)

METRES/SEC DEGREES		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30		*												
.10 TO	.20	252	*	.5	.9	.5	.4	.3	.5	.8	1.0	1.3	1.2	1.3	.2
-.00 TO	.10	2601	*	5.5	5.1	5.7	5.3	5.4	6.3	9.4	10.9	12.1	11.9	9.0	5.5
OUT OF RANGE		0	0												
SUB TOTAL		2853	0	172	171	176	160	163	194	265	338	382	373	294	165

JOINT DISTRIBUTION (PERCENT)

T(423.,2400.M.) VS S(423.,2400.M.)

PPT. DEG. CEL.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60.		*									
35.20 TO	35.40		*									
35.00 TO	35.20	2853	*	.2	99.8							
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		2853	0	7	2846							

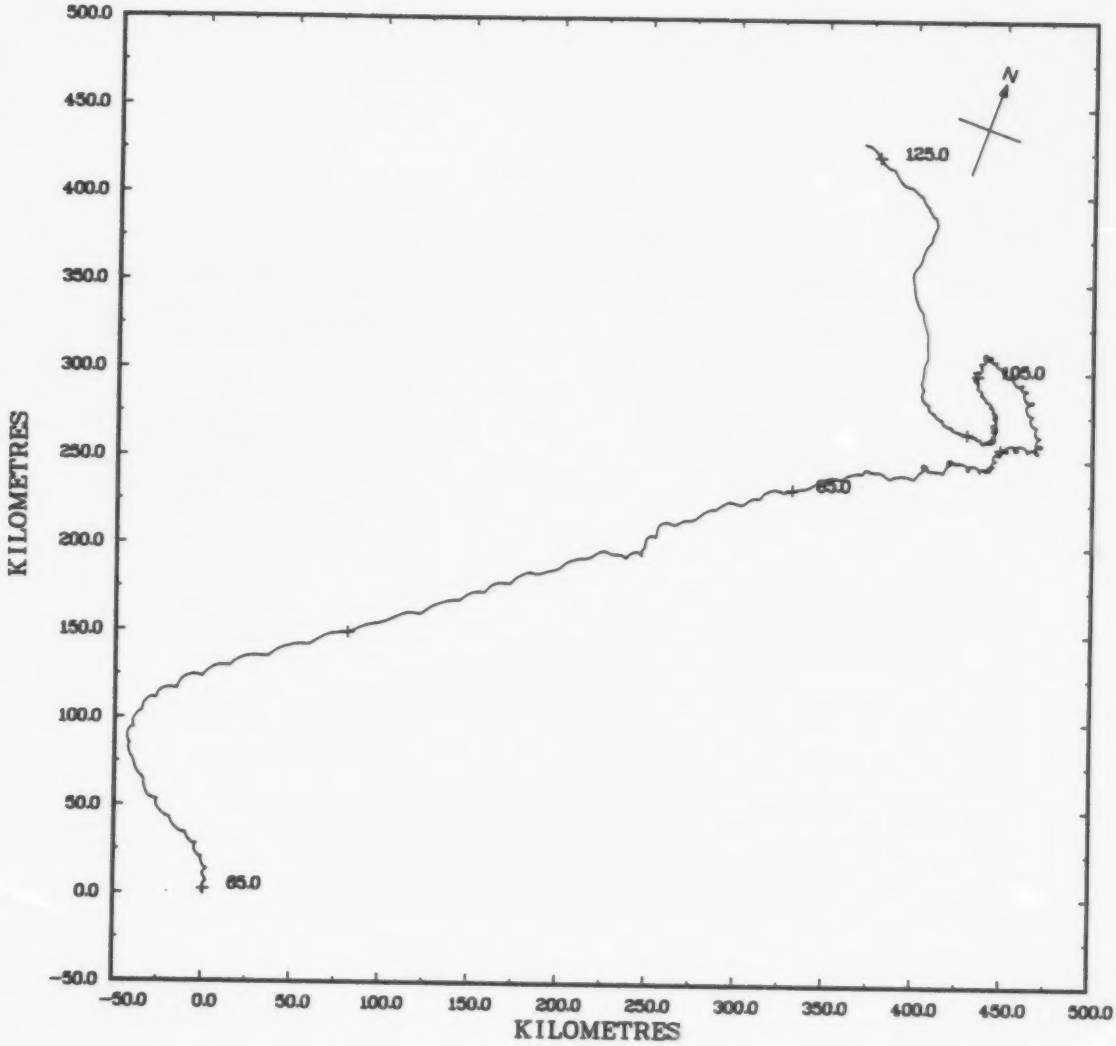
TABLE 6

MOORING SUMMARY, CRUISE 81-004

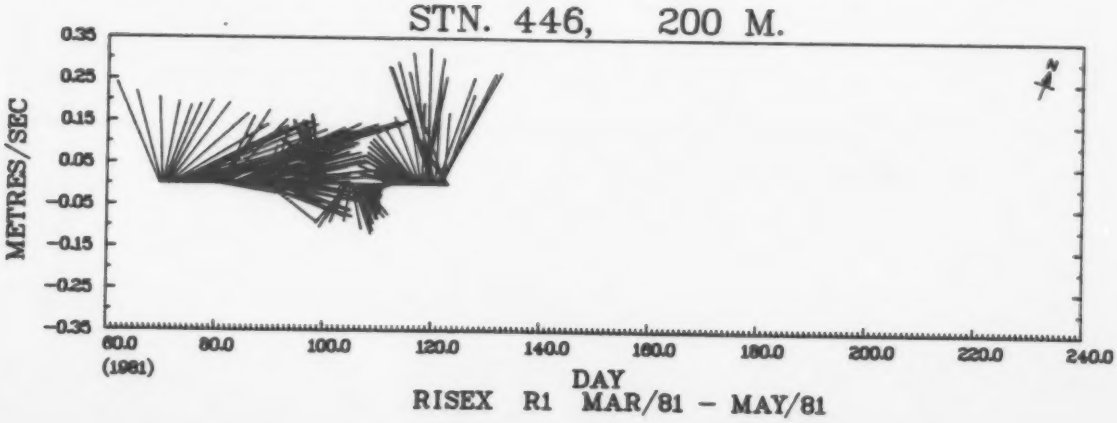
Station	Latitude	Longitude	Instrument Number, Type*	Nominal Depth	Actual Depth	Sounding	Comments
R1(446)	41°20.10'N	63°57.70'W	4349 A	200	213	3613	
			4421 A	500	513		
			4600 A	1000	1013		Rope tangled around vane and possibly the rotor, record was no good after day 77, 1981, because of dead battery.
			4601 A	2900	2913		Instrument flooded, no data.
			4603 A	3500	3513		Instrument flooded, no data.
R2(447)	41°26.55'N	63°30.10'W	4998 A	3500	3468	3568	Instrument flooded, no data.
R3(448)	40°59.75'N	65°00.85'W	5000 A	3500	3488	3588	Instrument was never recovered.
R4(449)	41°37.70'N	64°18.10'W	4158 A	200	202	3002	Some noise on all channels and the record was short, ended on day 77, 1981, because of dead battery.
			4199 A	1000	1002		
			4271 A	2900	2902		Instrument flooded, record was short, ended on day 87, 1981.
R5(450)	41°53.20'N	64°32.00'W	1282 A	200	197	2497	Mooring was never recovered.
			1287 A	500	497		Mooring was never recovered.
			1900 A	1000	997		Mooring was never recovered.
			1950 A	2400	2397		Mooring was never recovered.

*A = AANDERAA CURRENT METER

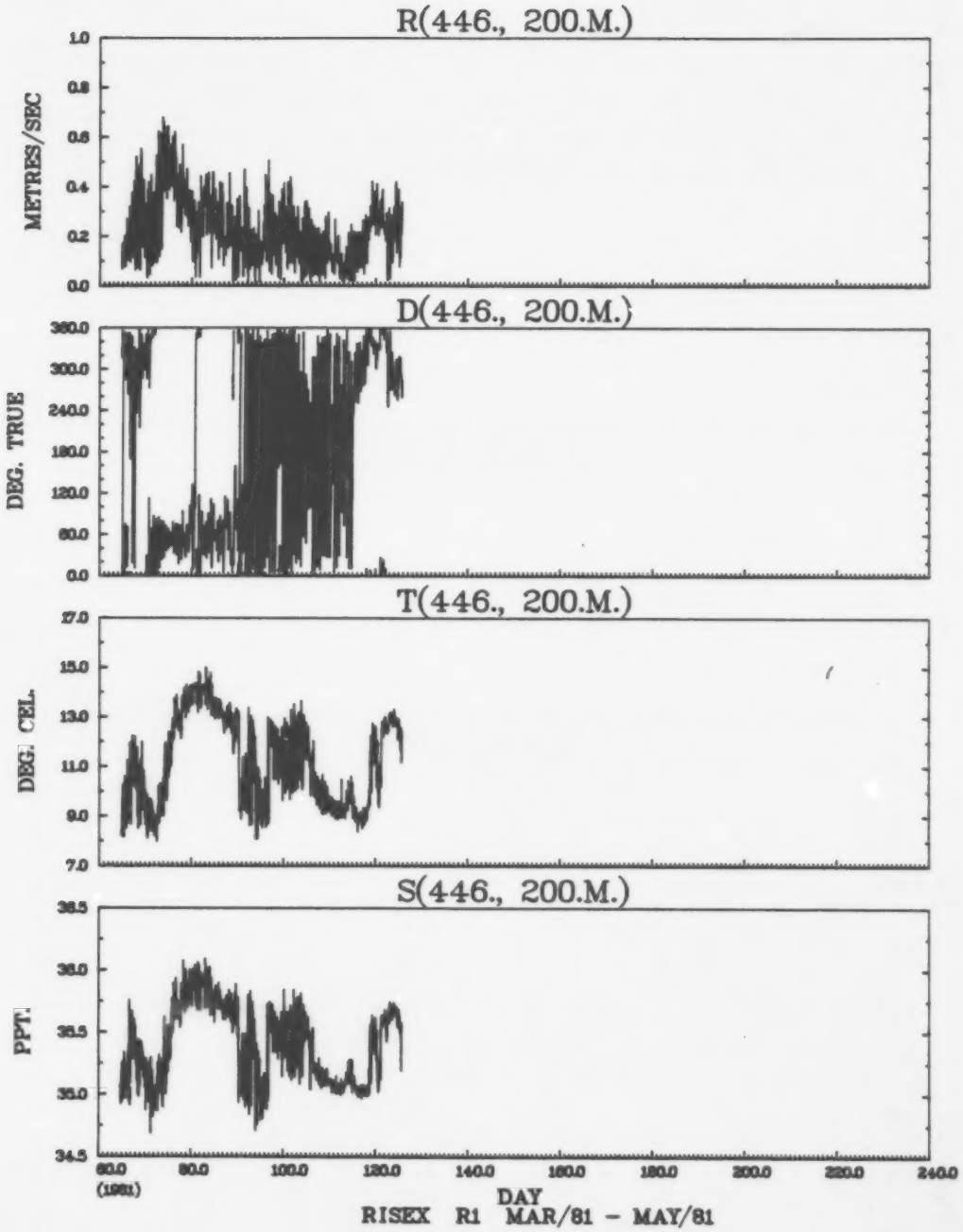
STN. 446, 200 M.

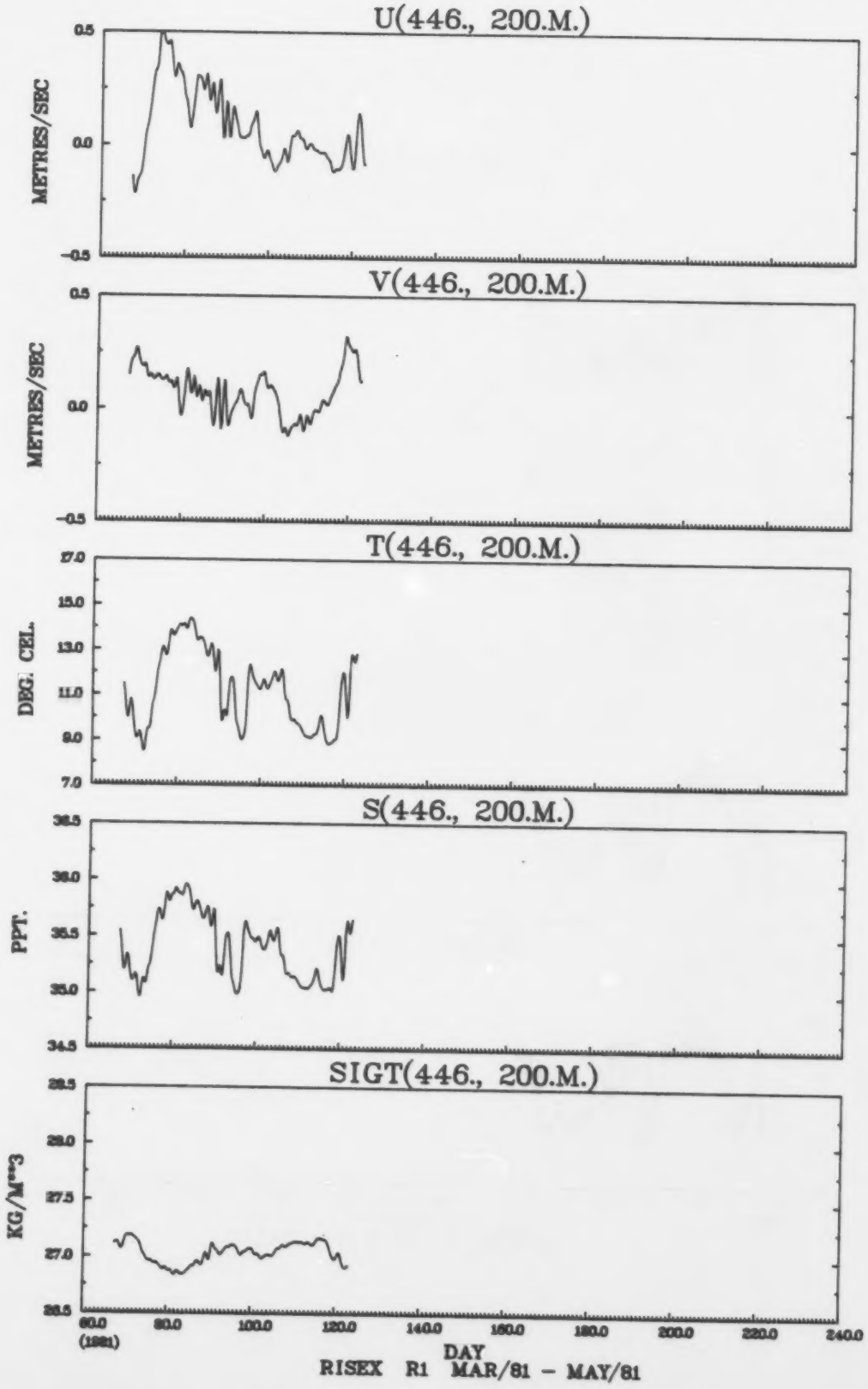


STN. 446, 200 M.



RISEX R1 MAR/81 – MAY/81


R(446., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(446., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(446., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(446., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAY/81


U(446., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(446., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(446., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(446., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(446., 200.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAY/81

JOINT DISTRIBUTION (PERCENT)

D(446.0 200.M.) VS R(446.0 200.M.)

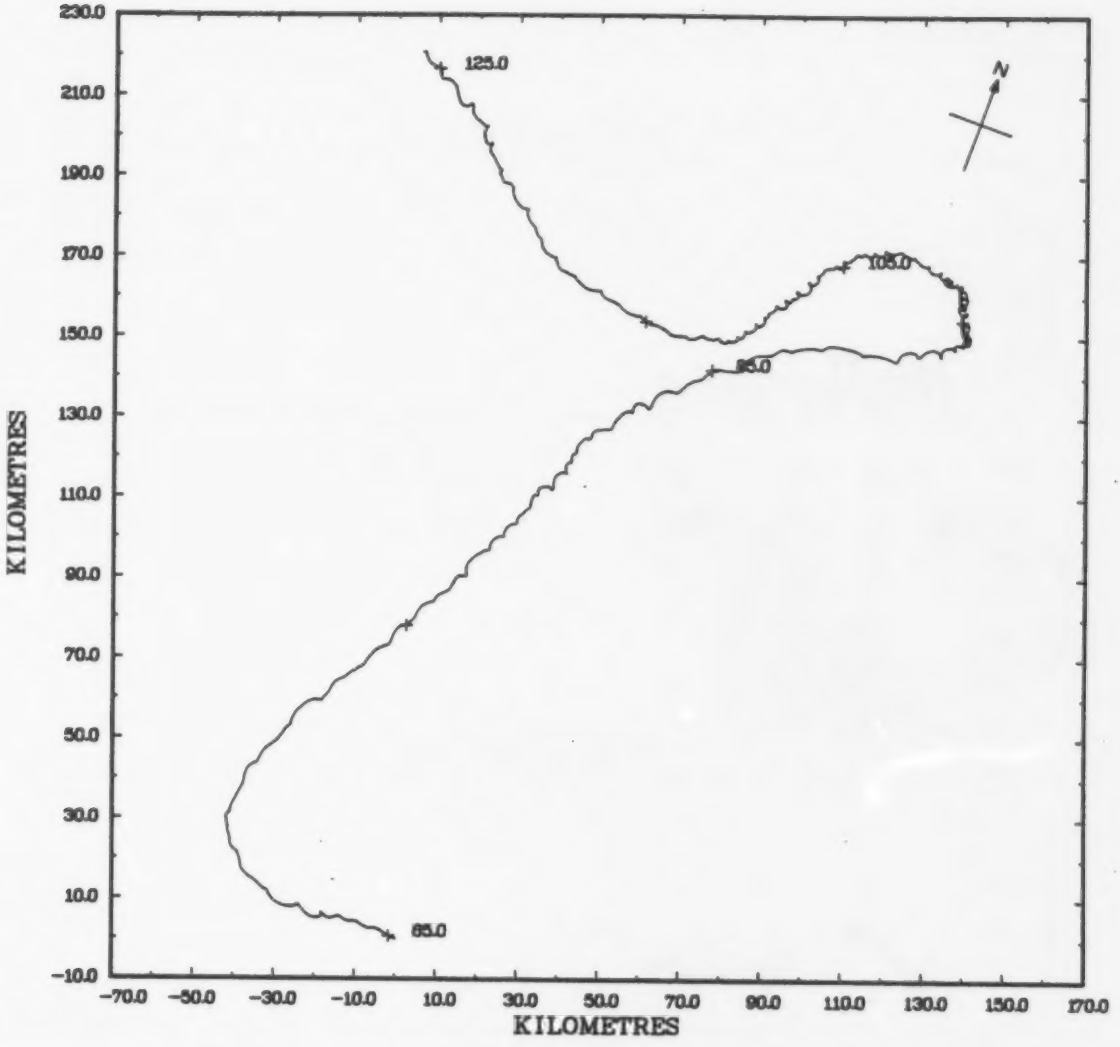
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70	15	*		.6	.4									
.50 TO	.60	36	*	.1	1.0	.6									
.40 TO	.50	97	*	.4	2.5	1.9	.2				.1	.1	.5	.5	.3
.30 TO	.40	255	*	2.3	4.5	3.7	.7	.1	.1	.1	.1	.5	1.2	2.9	1.3
.20 TO	.30	423	*	3.1	3.2	2.9	2.1	1.3	.6	.3	.5	1.3	2.8	4.4	6.3
.10 TO	.20	434	*	3.4	2.1	3.0	2.7	1.8	1.7	1.4	1.4	2.3	4.0	3.1	2.8
-.00 TO	.10	202	*	.6	1.0	1.0	1.0	1.0	.7	1.1	1.7	1.4	1.8	1.3	1.4
OUT OF RANGE		0	0												
SUB TOTAL		1462	0	144	230	198	97	62	45	41	56	83	151	179	176

JOINT DISTRIBUTION (PERCENT)

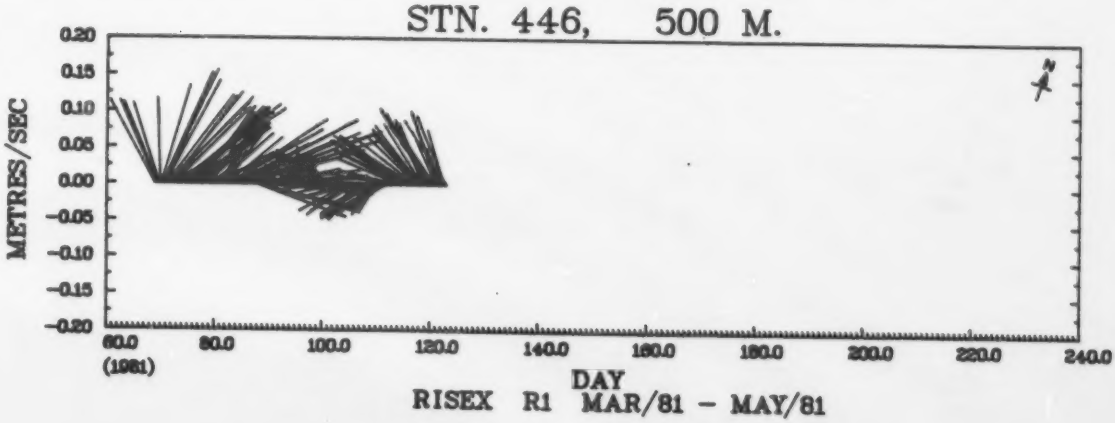
T(446., 200.M.) VS S(446., 200.M.)

DEG. CEL. PPT.		SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20	16	*							1.1		
35.80 TO	36.00	125	*							8.5		
35.60 TO	35.80	330	*						13.1	9.4		
35.40 TO	35.60	259	*					1.0	16.8			
35.20 TO	35.40	205	*					12.0	2.1			
35.00 TO	35.20	474	*				6.8	26.9				
34.80 TO	35.00	49	*				2.1	1.3				
34.60 TO	34.80	2	*				.1					
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUM TOTAL		1462	0				120	596	467	279		

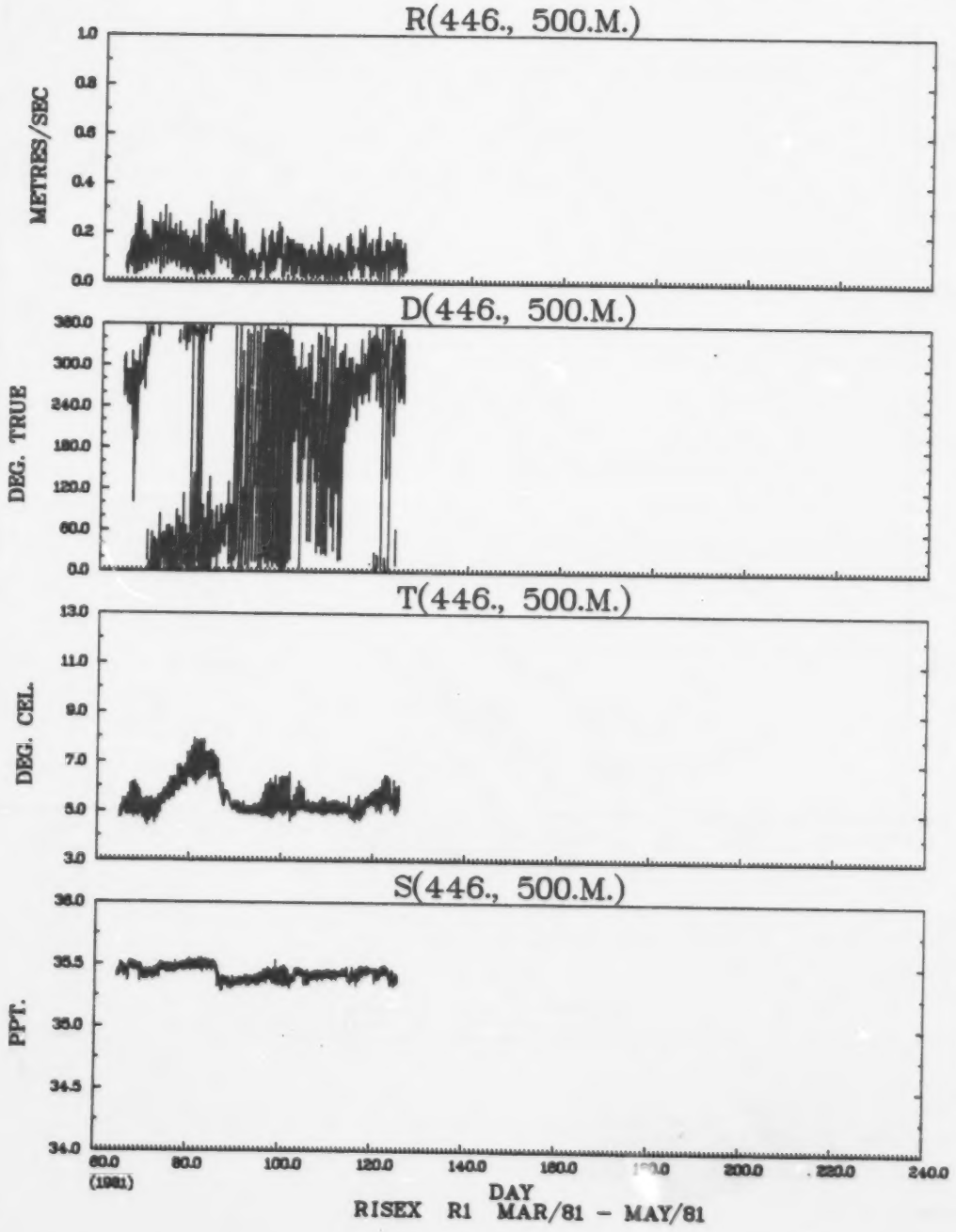
STN. 446, 500 M.

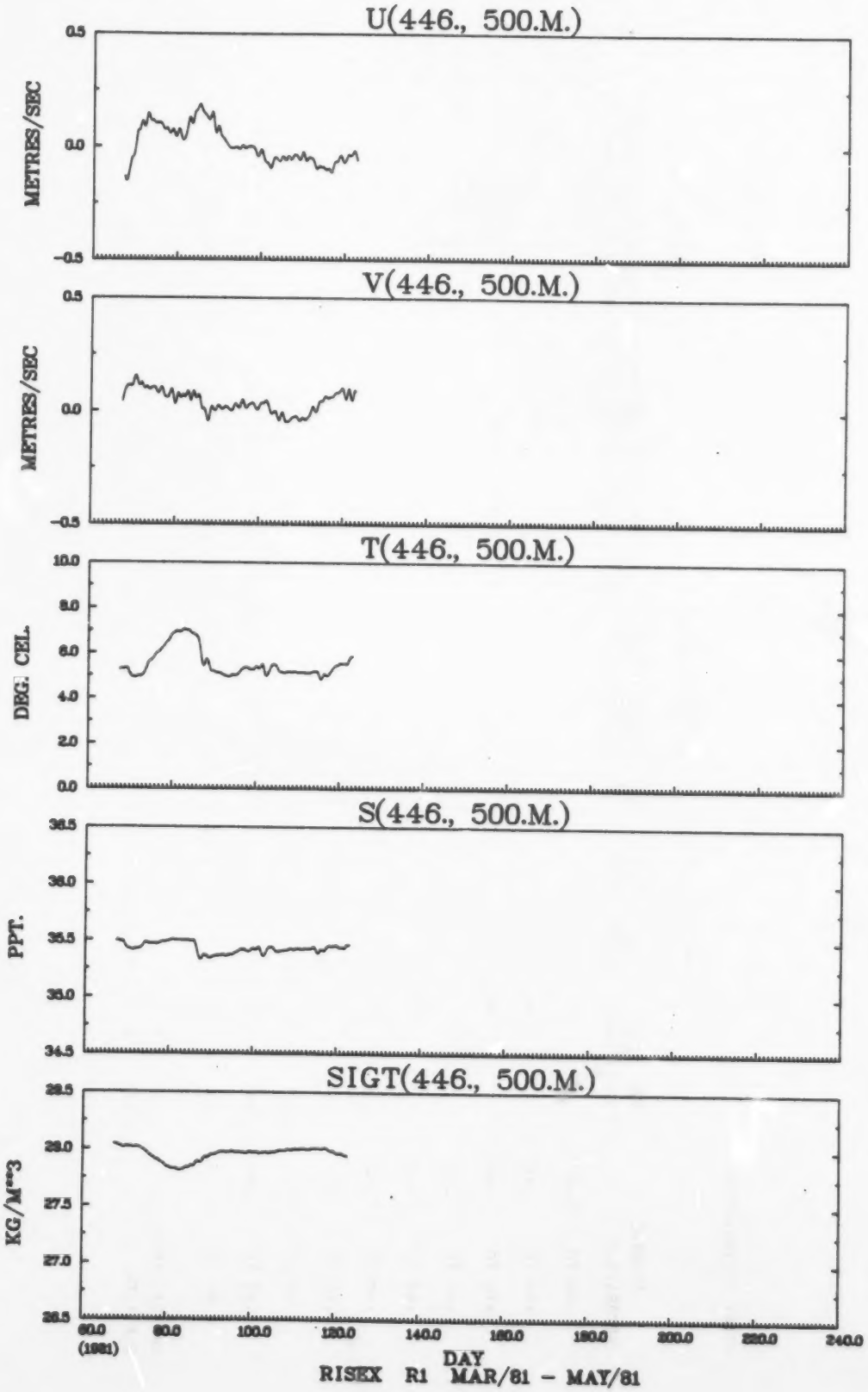


STN. 446, 500 M.



RISEX R1 MAR/81 - MAY/81


R(446., 500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(446., 500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(446., 500.M.)
DEG. CEL.
13.0
11.0
9.0
7.0
5.0
3.0
S(446., 500.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAY/81


U(446., 500.M.)
METRES/SEC
0.5
0.0
-0.5
V(446., 500.M.)
METRES/SEC
0.5
0.0
-0.5
T(446., 500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(446., 500.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(446., 500.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAY/81

JOINT DISTRIBUTION (PERCENT)

D(446., 500.M.) VS R(446., 500.M.)

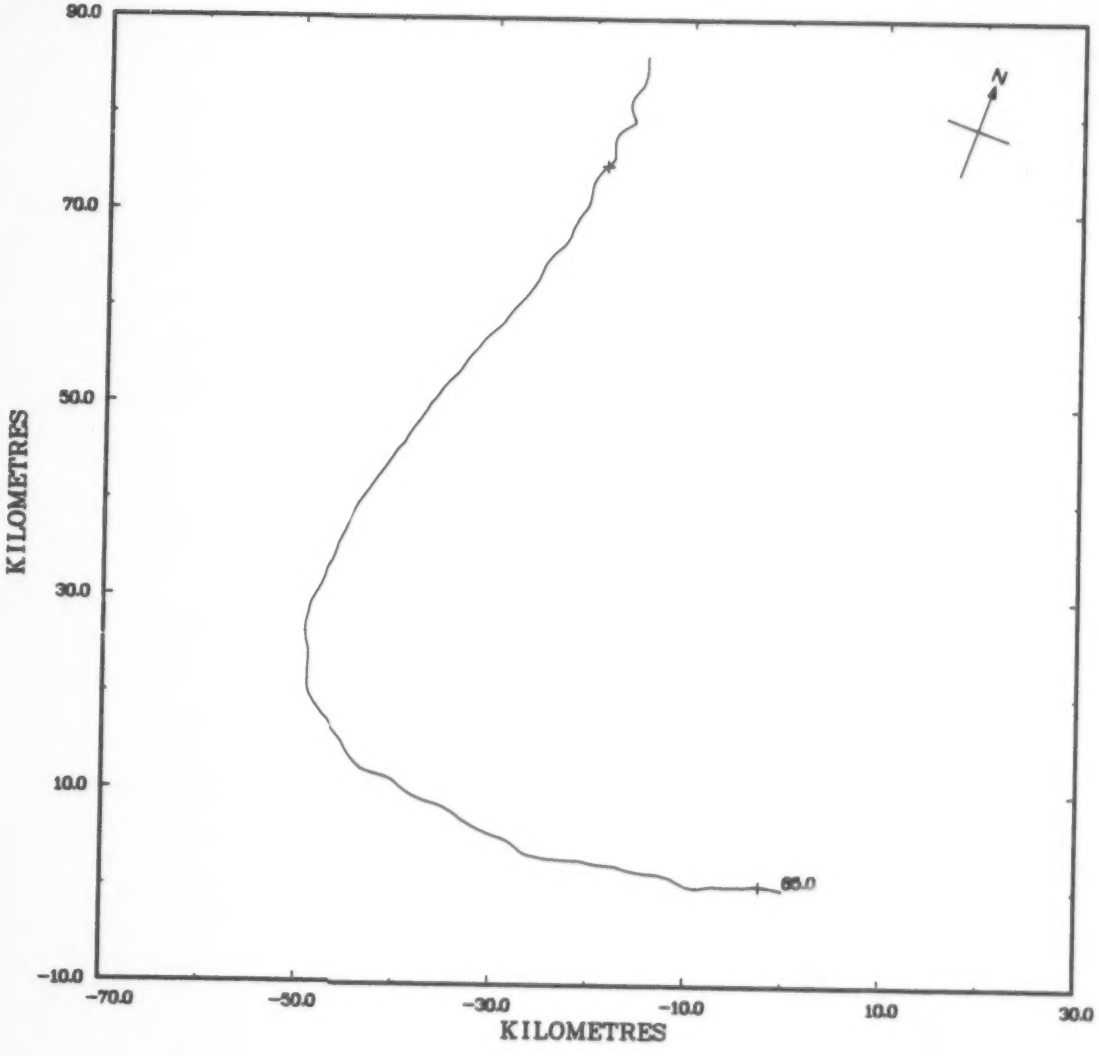
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	1	*	.1											
.20 TO	.30	112	*	2.3	1.7	1.6	.2			.1		.5	.5	.3	.4
.10 TO	.20	720	*	8.0	5.8	3.9	1.2	.6	1.1	1.7	2.1	5.4	8.1	6.1	4.1
-.00 TO	.10	629	*	3.0	3.4	2.6	2.3	2.2	3.1	2.8	3.9	4.9	7.0	4.2	3.6
OUT OF RANGE		0	0												
SUB TOTAL		1462	0	196	160	118	54	41	62	67	88	159	229	155	133

JOINT DISTRIBUTION (PERCENT)

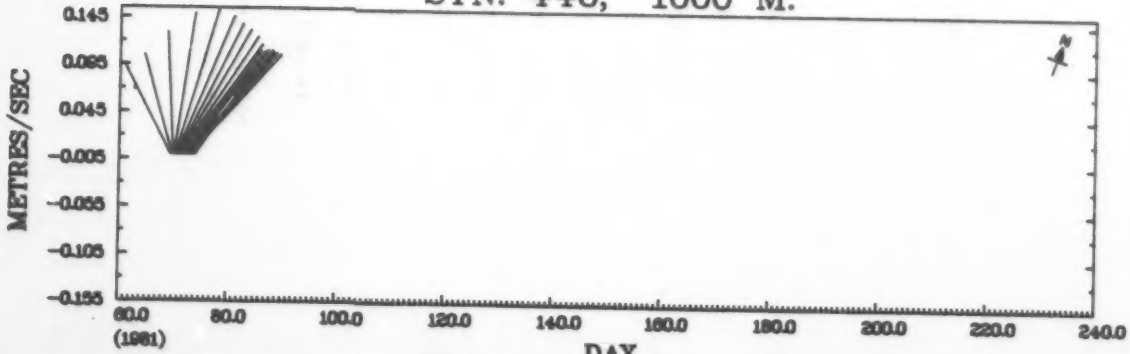
T(446., 500.M.) VS S(446., 500.M.)

PPT. DEG. CEL.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60	1095	*		11.6	58.8	4.6					
35.20 TO	35.40	367	*		7.3	17.8						
35.00 TO	35.20		*									
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		1462	0		276	1119	67					

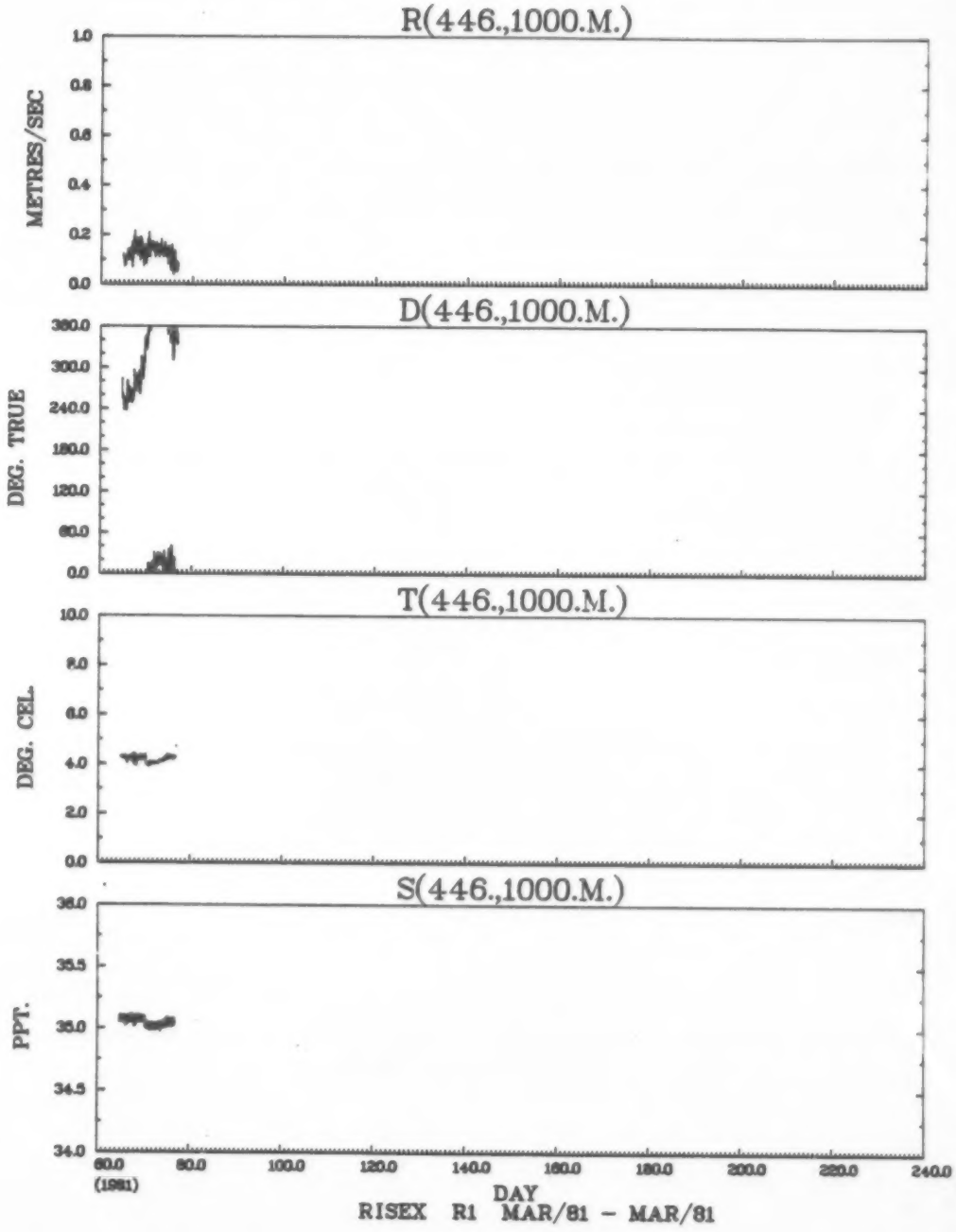
STN. 446, 1000 M.

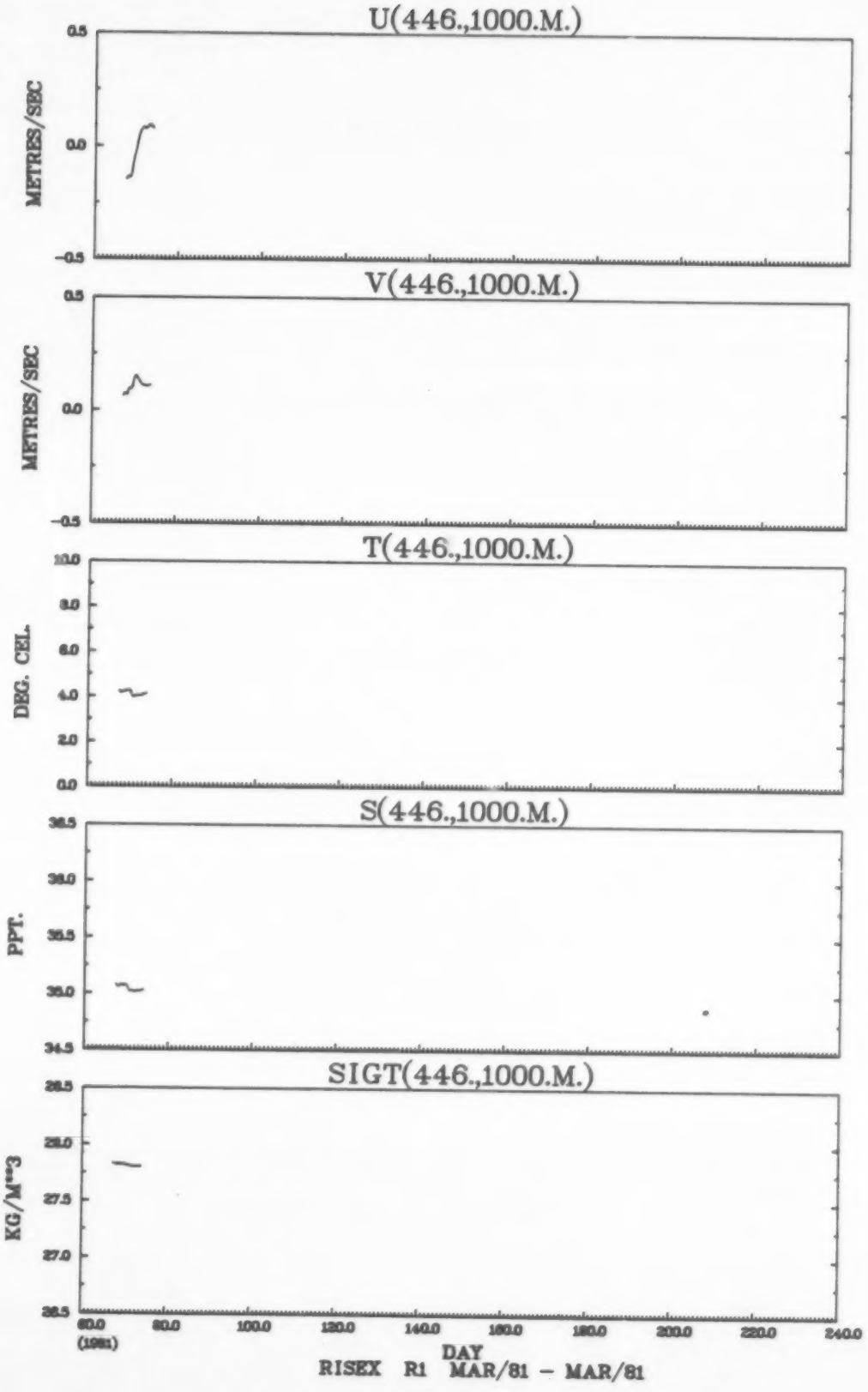


STN. 446, 1000 M.



RISEX R1 MAR/81 - MAR/81


R(446.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(446.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(446.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(446.,1000.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAR/81


U(446.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(446.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(446.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(446.,1000.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(446.,1000.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R1 MAR/81 - MAR/81

JOINT DISTRIBUTION (PERCENT)

D(446.,1000.M.) VS R(446.,1000.M.)

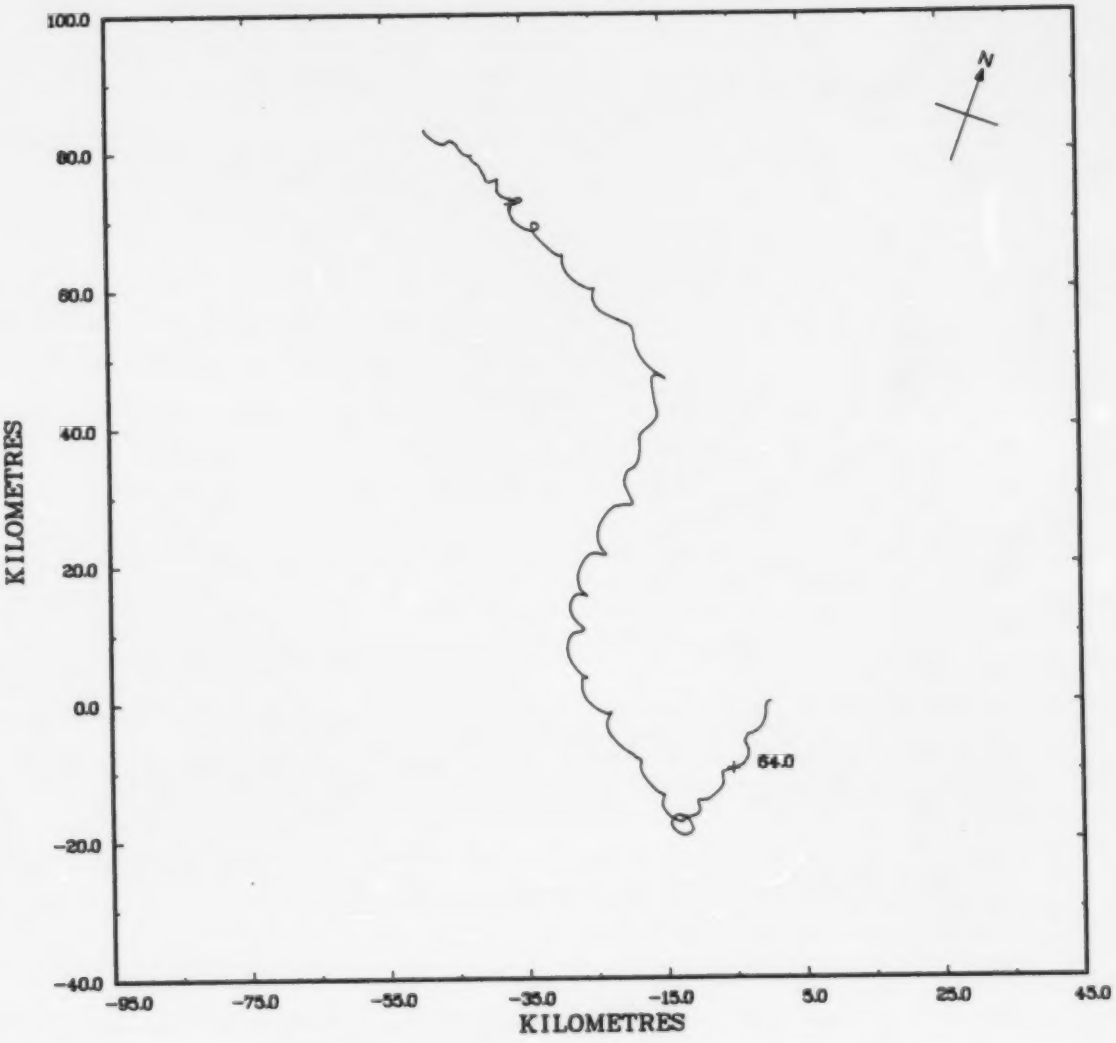
METRES/SEC DEGREES		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	1	*	.3											
.10 TO	.20	298	*	35.1	1.0						.3	18.1	12.8	5.9	9.4
-.00 TO	.10	40	*	3.5	1.0						.3	3.1	.7	1.7	6.6
OUT OF RANGE		0	0												
SUB TOTAL		288	0	112	6						7	61	39	22	46

JOINT DISTRIBUTION (PERCENT)

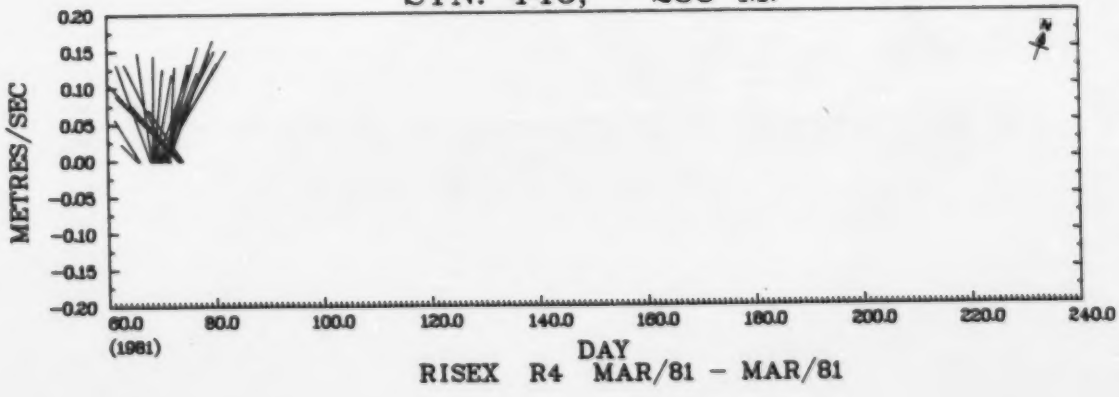
T(446.,1000.M.) VS S(446.,1000.M.)

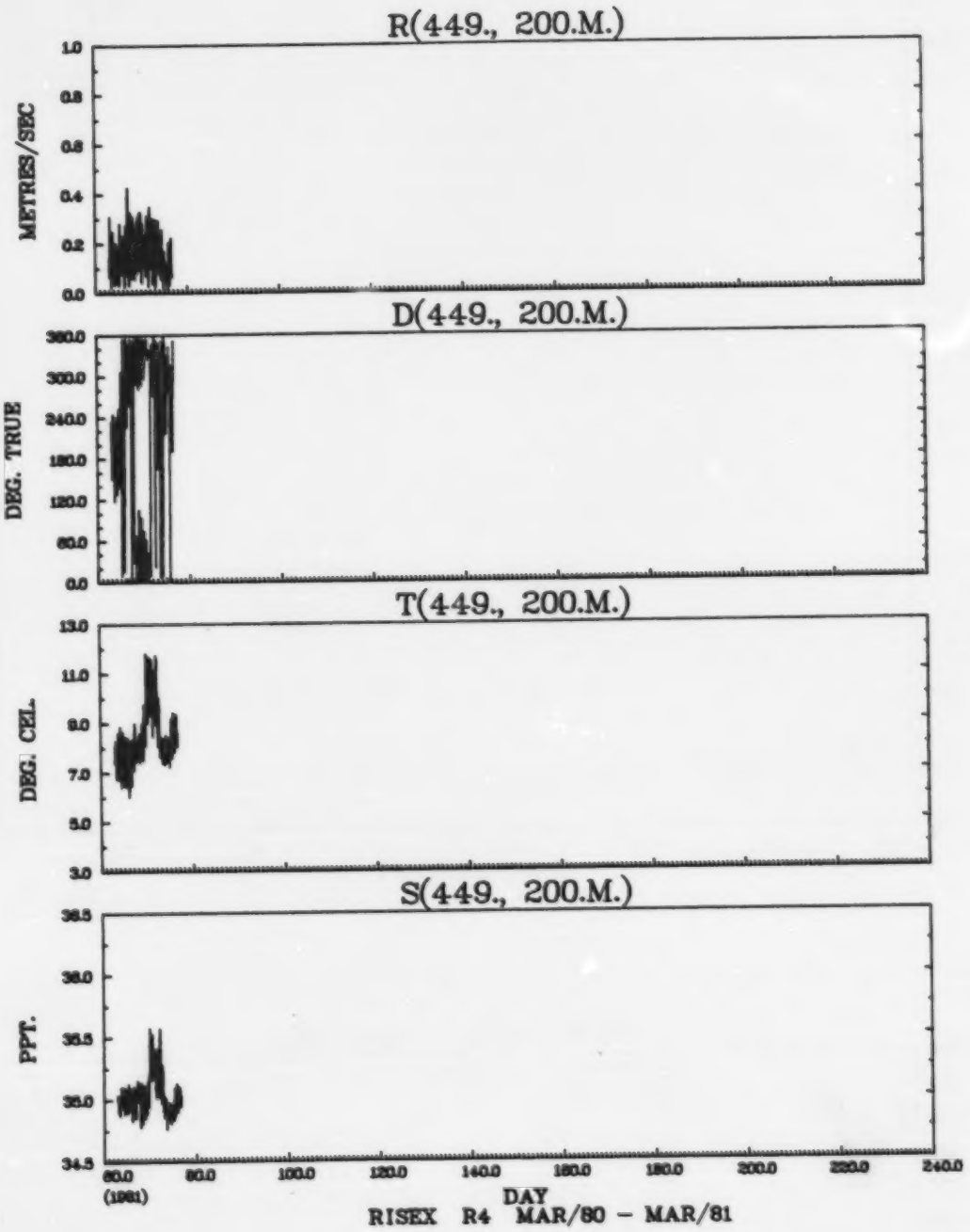
DEG. CEL. / PPT.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40		*									
35.00 TO	35.20	287	*	99.7								
34.80 TO	35.00	1	*	.3								
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		288	0	288								

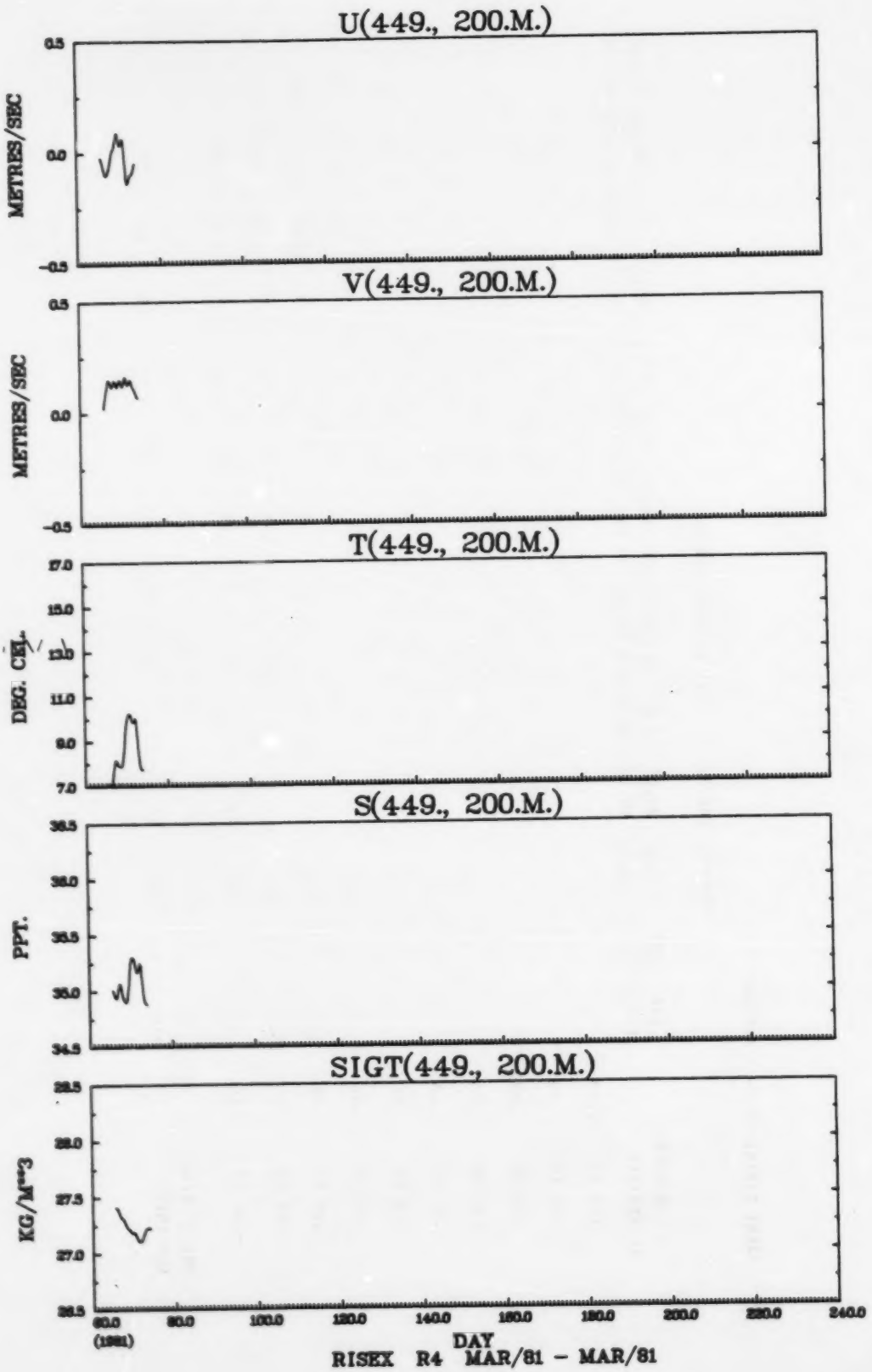
STN. 449, 200 M.



STN. 449, 200 M.




R(449., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(449., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(449., 200.M.)
DEG. CEL.
13.0
11.0
9.0
7.0
5.0
3.0
S(449., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/80 - MAR/81


U(449., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(449., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(449., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(449., 200.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(449., 200.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/81 - MAR/81

JOINT DISTRIBUTION (PERCENT)

D(449., 200.M.) VS R(449., 200.M.)

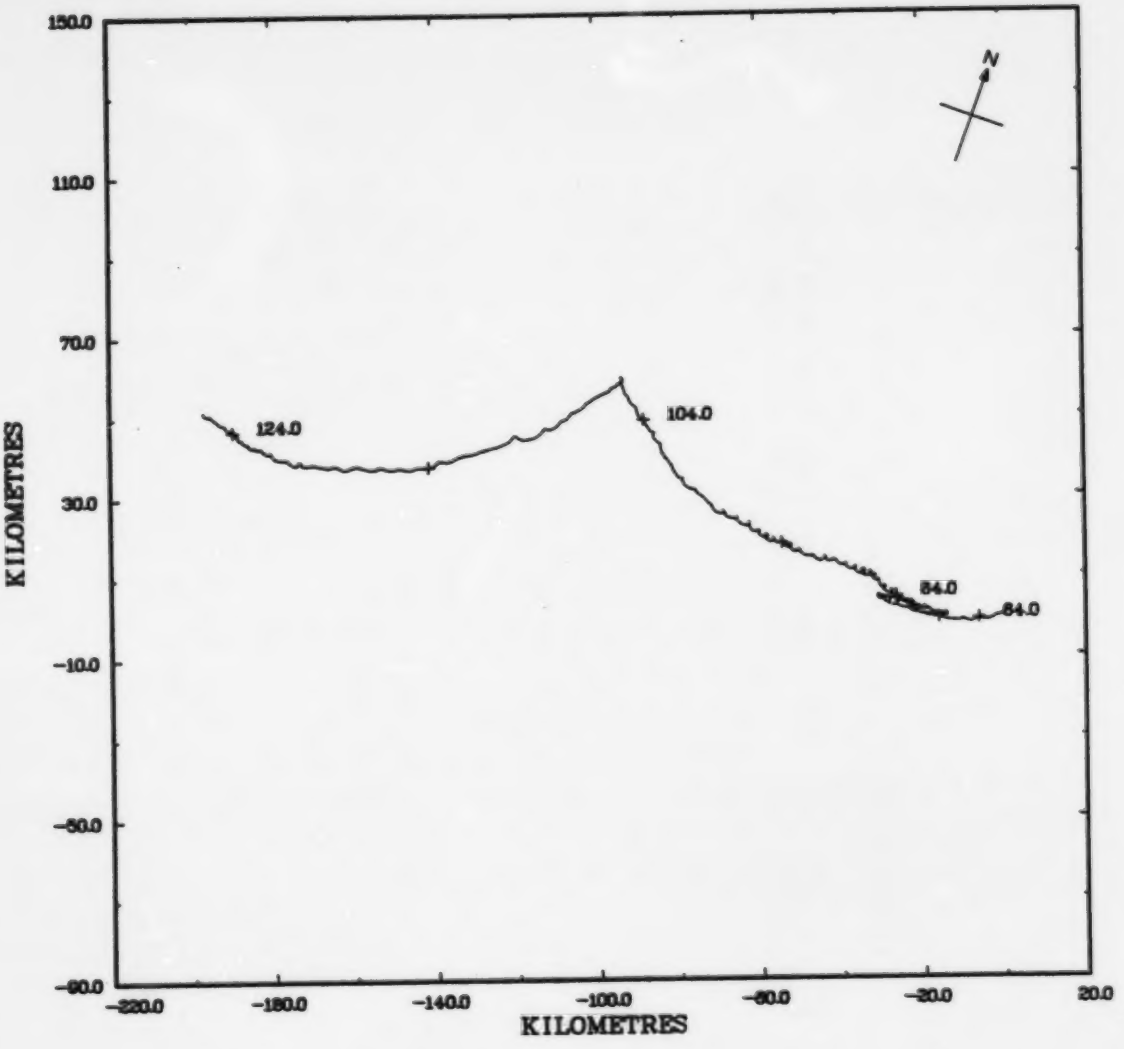
DEGREES METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	9	*	.3									.9	1.2	.3
.20 TO	.30	104	*	3.3	.9	.6		.6	.9	.9	.6	.3	10.3	6.4	6.7
.10 TO	.20	127	*	3.0	3.0	1.8	1.5	1.5	1.5	1.5	5.2	3.3	7.0	4.6	4.6
-.00 TO	.10	89	*	1.8	1.2	1.2	.6	1.2	1.8	2.7	4.3	2.4	2.4	4.6	2.7
OUT OF RANGE		0	0												
SUB TOTAL		329	0	28	17	12	7	11	14	17	33	20	68	55	47

JOINT DISTRIBUTION (PERCENT)

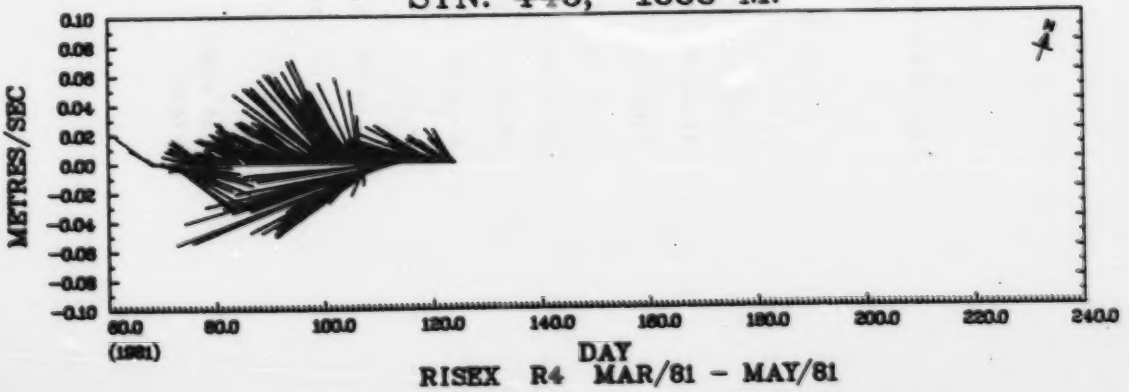
T(449., 200.M.) VS S(449., 200.M.)

DEG. CEL. / PPT.		SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60	6	*						1.8			
35.20 TO	35.40	34	*					9.1	1.2			
35.00 TO	35.20	174	*			.6	25.5	11.6				
34.80 TO	35.00	165	*			10.9	39.2					
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUM TOTAL		329	0			38	213	68	10			

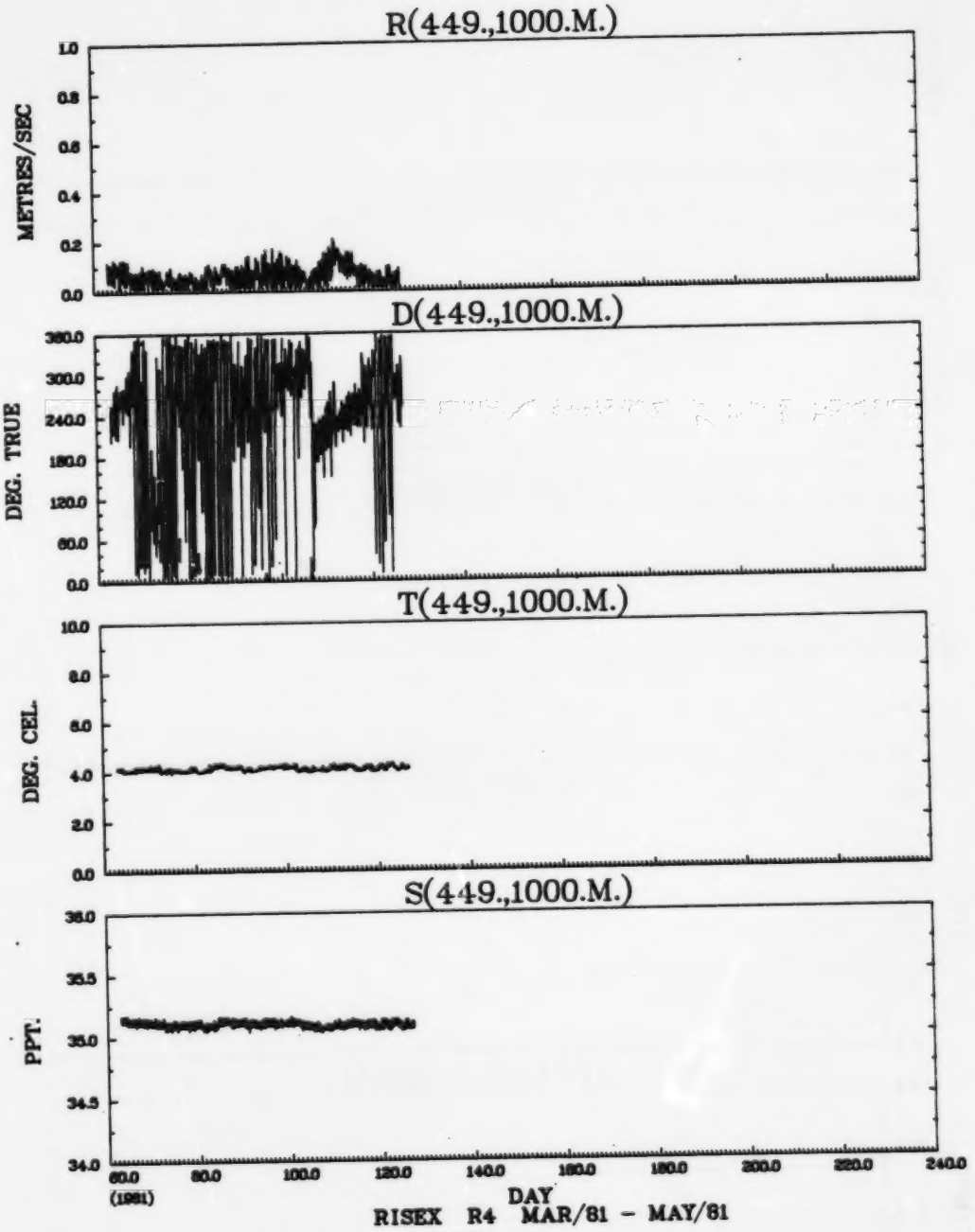
STN. 449, 1000 M.

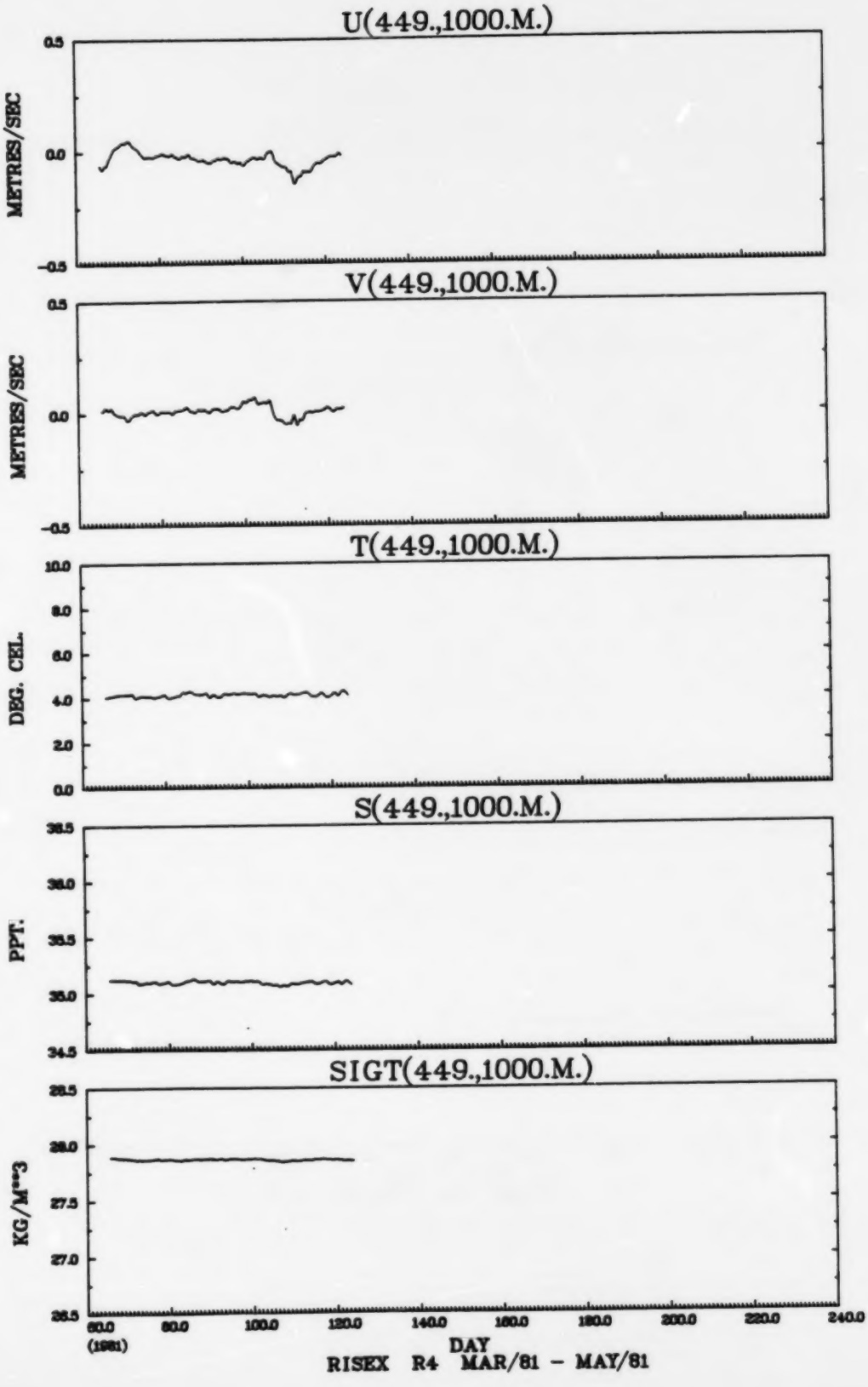


STN. 449, 1000 M.



RISEX R4 MAR/81 - MAY/81


R(449.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(449.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(449.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(449.,1000.M.)
PPT.
36.0
35.5
35.0
34.5
34.0
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/81 - MAY/81


U(449.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(449.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(449.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(449.,1000.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(449.,1000.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/81 - MAY/81

JOINT DISTRIBUTION (PERCENT)

D(449.,1000.M.) VS R(449.,1000.M.)

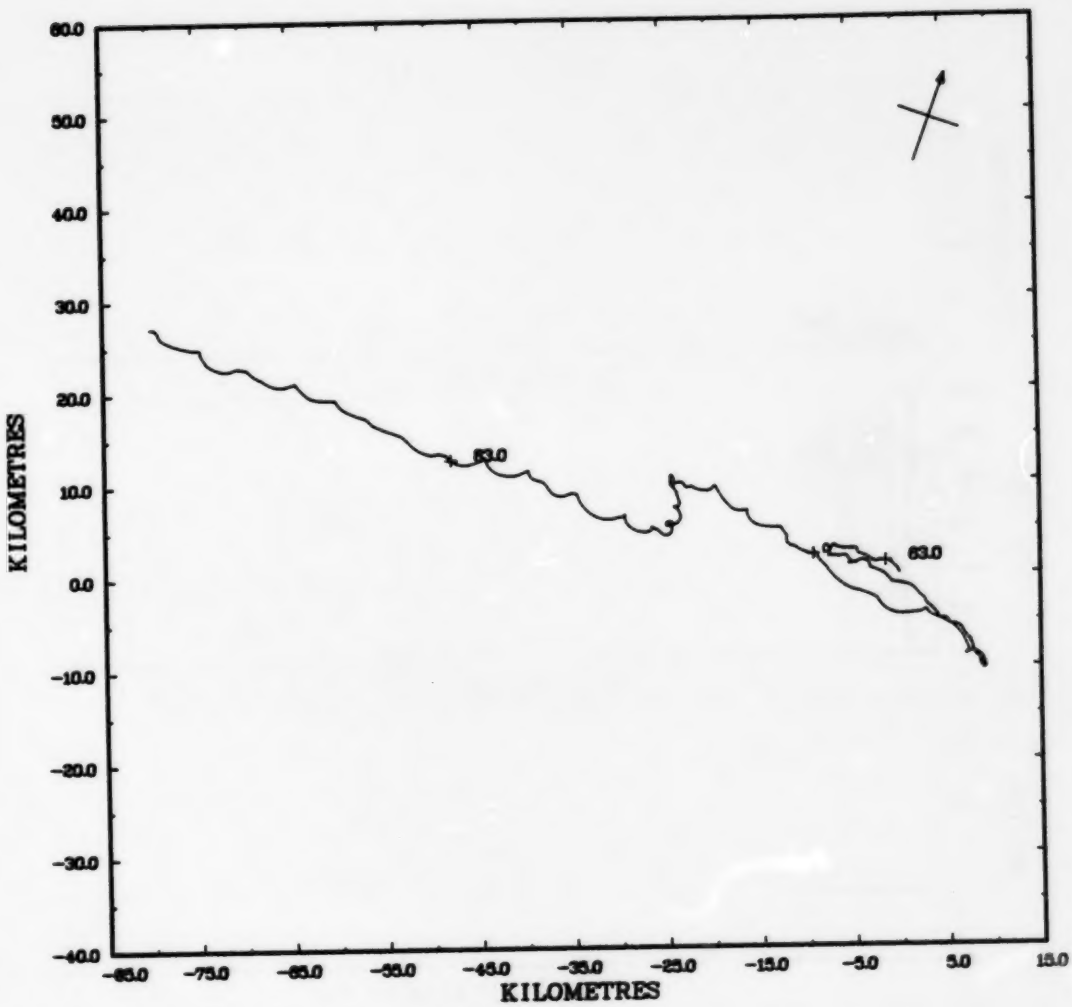
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	1	*								.1				
.10 TO	.20	209	*		.1				.1	.7	3.7	4.8	2.8	2.1	.2
-.00 TO	.10	1319	*	3.3	3.4	3.1	3.7	3.1	3.7	5.9	11.6	14.9	14.8	12.7	6.1
OUT OF RANGE		0	0												
SUB TOTAL		1529	0	50	53	48	56	47	57	101	236	289	270	226	96

JOINT DISTRIBUTION (PERCENT)

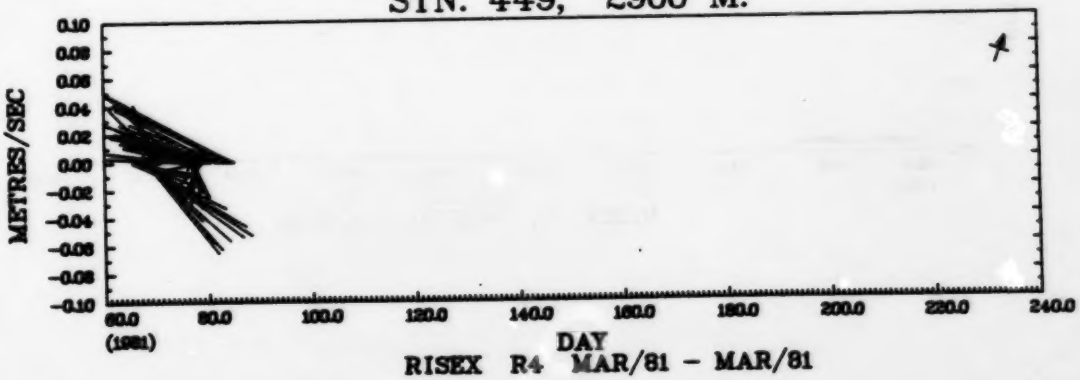
T(449.,1000.M.) VS S(449.,1000.M.)

DEG. CEL. PPT.		SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60		*									
35.20 TO	35.40		*									
35.00 TO	35.20	1529	*		****							
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUM TOTAL		1529	0		1529							

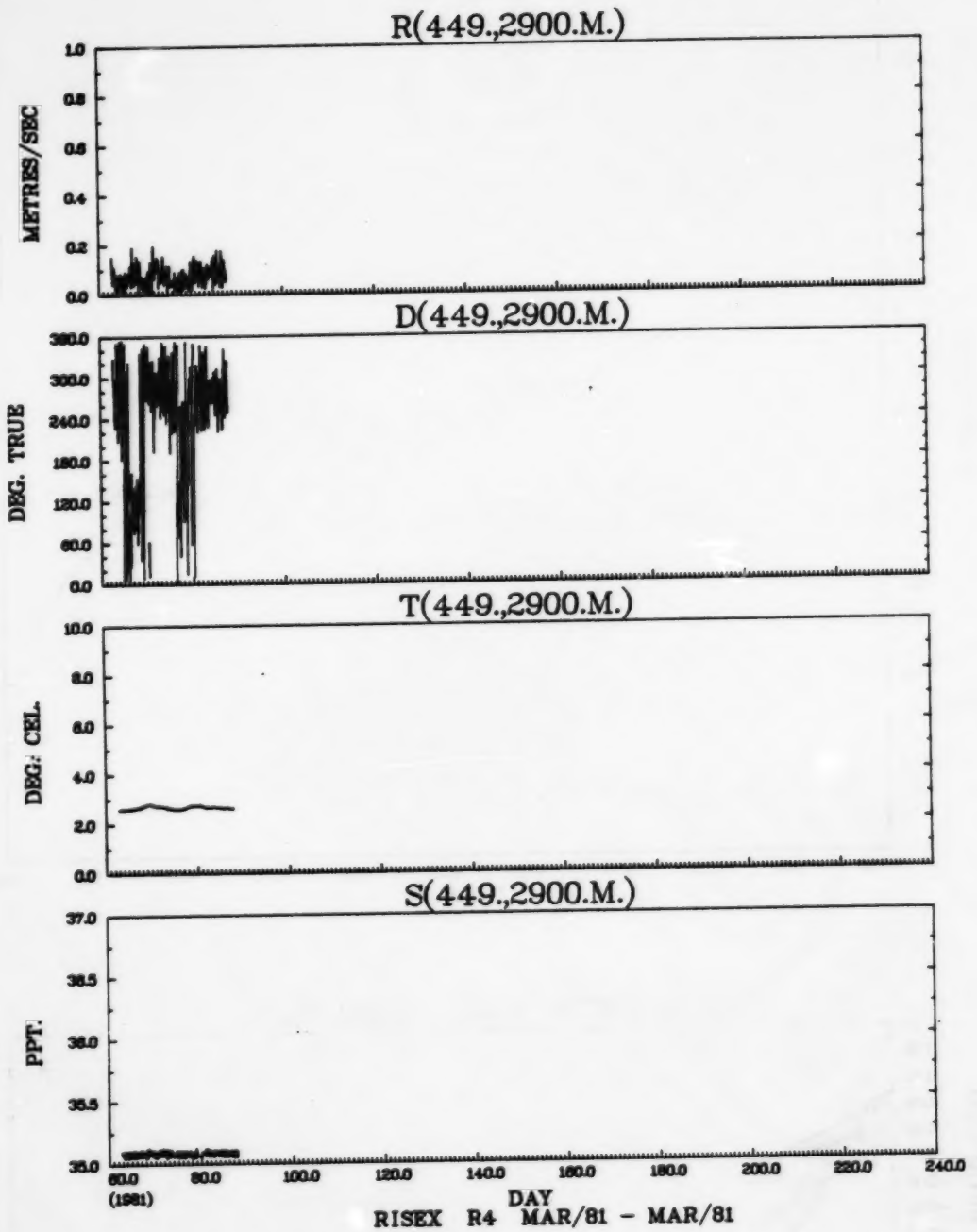
STN. 449, 2900 M.

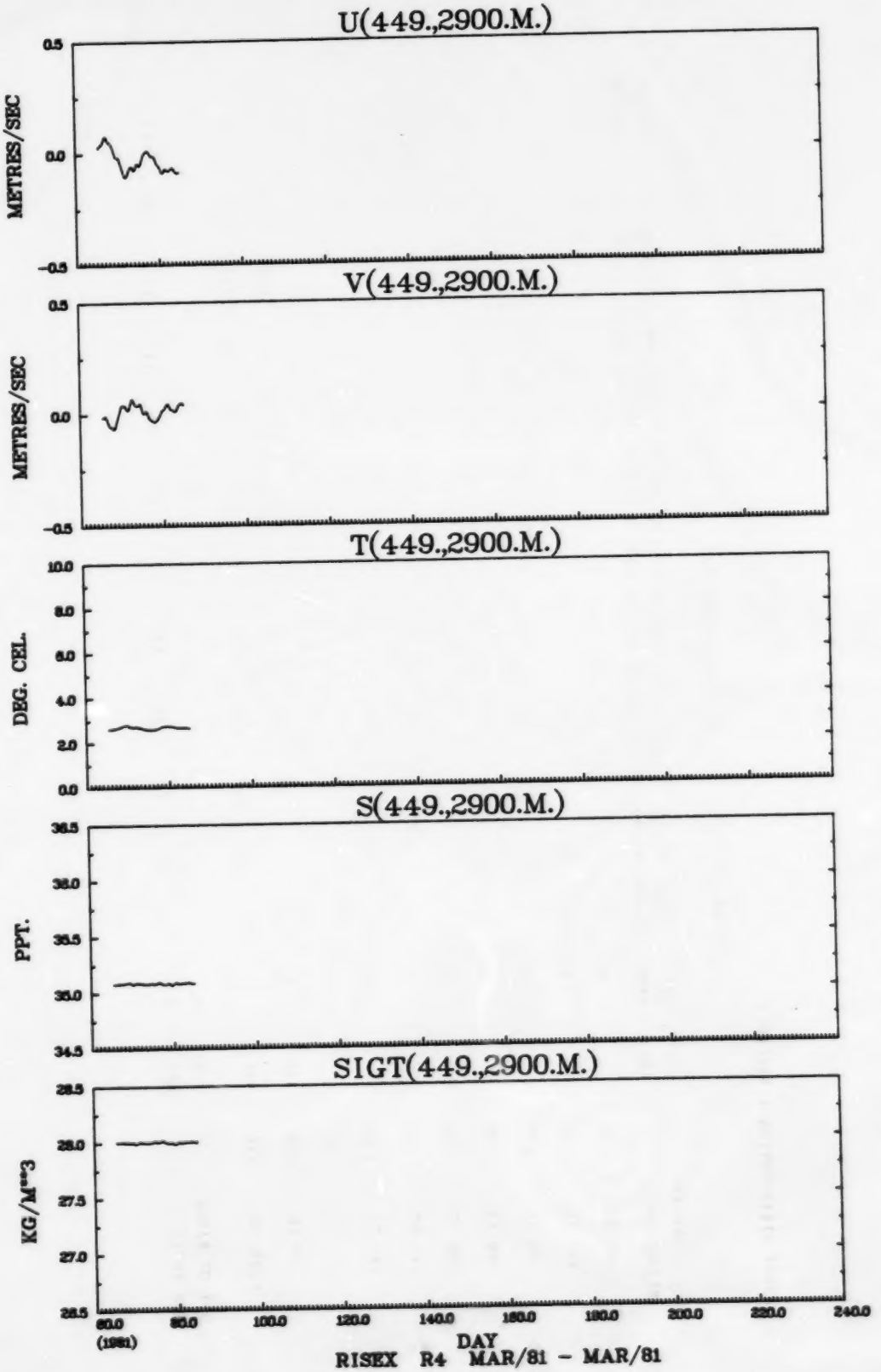


STN. 449, 2900 M.



RISEX R4 MAR/81 – MAR/81


R(449.,2900.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(449.,2900.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(449.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(449.,2900.M.)
PPT.
37.0
36.5
36.0
35.5
35.0
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/81 - MAR/81


U(449.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
V(449.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
T(449.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(449.,2900.M.)
PPT.
36.5
36.0
35.5
35.0
34.5
SIGT(449.,2900.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
60.0
(1981)
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
DAY
RISEX R4 MAR/81 - MAR/81

JOINT DISTRIBUTION (PERCENT)

D(449.,2900.M.) VS R(449.,2900.M.)

DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30		*												
.10 TO	.20	155	*			.8	1.8	1.2			1.3	7.7	10.0	3.0	
-.00 TO	.10	445	*	.8	2.2	2.8	4.0	5.8	3.8	3.7	8.0	11.8	16.3	10.3	4.5
OUT OF RANGE		0	0												
SUB TOTAL		600	0	5	13	22	35	42	23	22	56	117	158	80	27

JOINT DISTRIBUTION (PERCENT)

T(449.,2900.M.) VS S(449.,2900.M.)

DEG. CEL. PPT.	SUM TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO 36.60		*									
36.20 TO 36.40		*									
36.00 TO 36.20		*									
35.80 TO 36.00		*									
35.60 TO 35.80		*									
35.40 TO 35.60		*									
35.20 TO 35.40		*									
35.00 TO 35.20	600	*	****								
34.80 TO 35.00		*									
34.60 TO 34.80		*									
34.40 TO 34.60		*									
OUT OF RANGE	0	0									
SUB TOTAL	600	0	600								

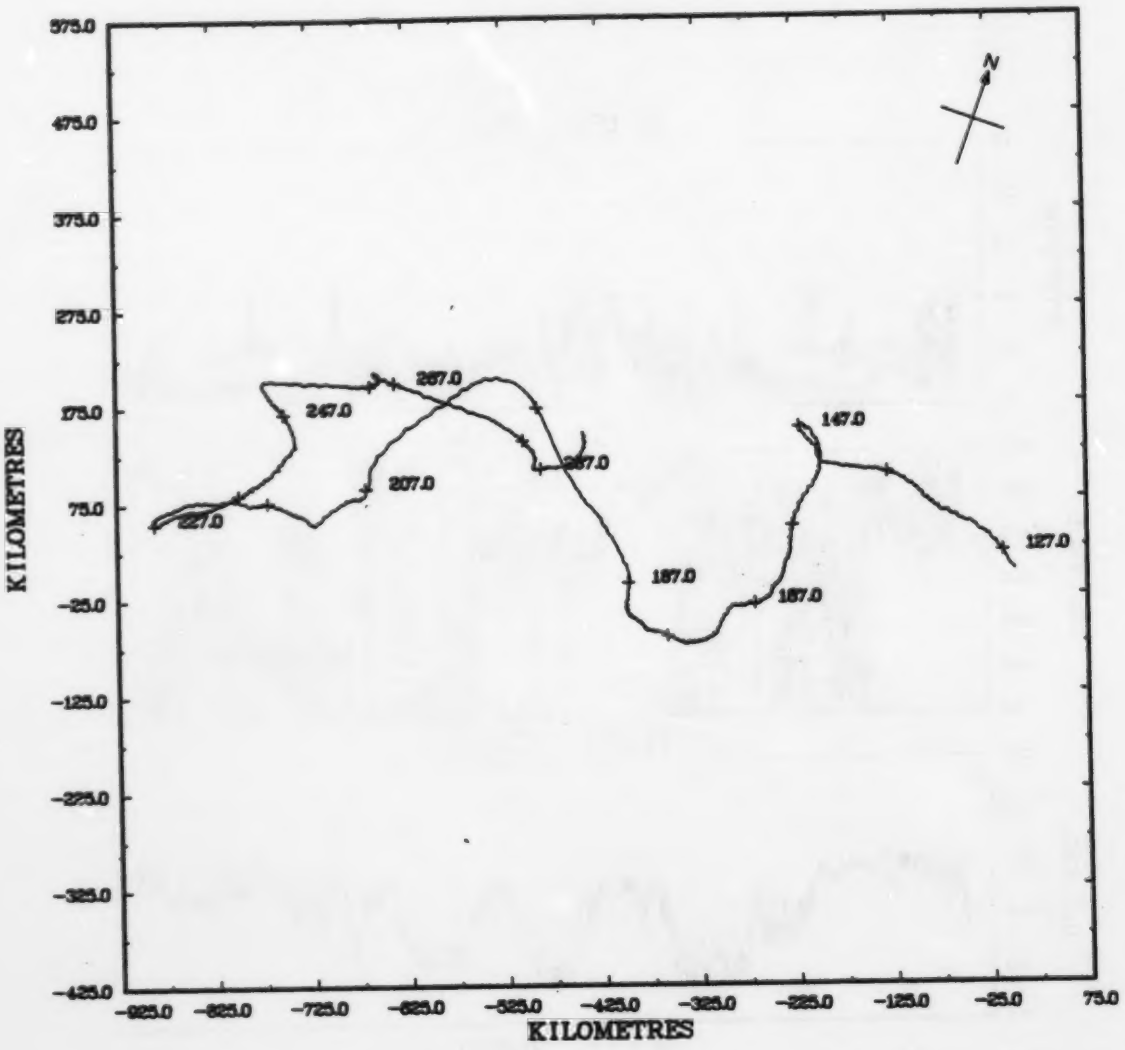
TABLE 7

MOORING SUMMARY, CRUISE 81-014

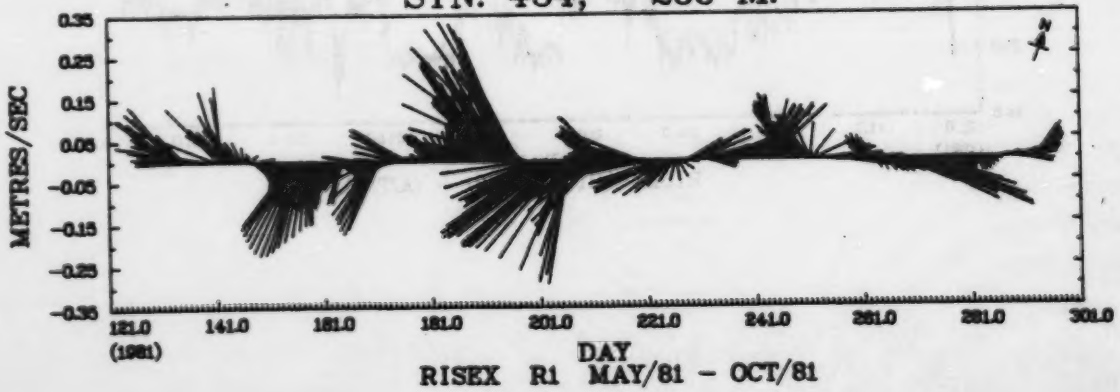
Station	Latitude	Longitude	Instrument Number, Type*	Nominal Depth	Actual Depth	Sounding	Comments
R1(454)	41°21.48'N	63°59.44'W	4349 A	200	208	3608	
			4421 A	500	508		Record ended on day 144, 1981, because of dead battery.
			4299 A	1000	1008		Record bottoms out for unknown reasons.
			5567 A	2900	2908		
			5578 A	3500	3508		
R2(452)	41°27.00'N	63°29.33'W	5575 A	3500	3508	3608	Temperatures are unreliable beyond day 203, 1981. Noise is caused by channel changer switch being out of adjustment.
R3(453)	41°00.40'N	64°59.20'W	4201 A	3500	3498	3598	
R4(455)	41°38.65'N	64°17.70'W	5568 A	200	202	3002	
			5572 A	1000	1002		
			5574 A	2900	2902		Record is unreliable because instrument failed on low temperatures, noise on temperature data because of channel changer switch being out of adjustment.

*A = AANDERAA CURRENT METER

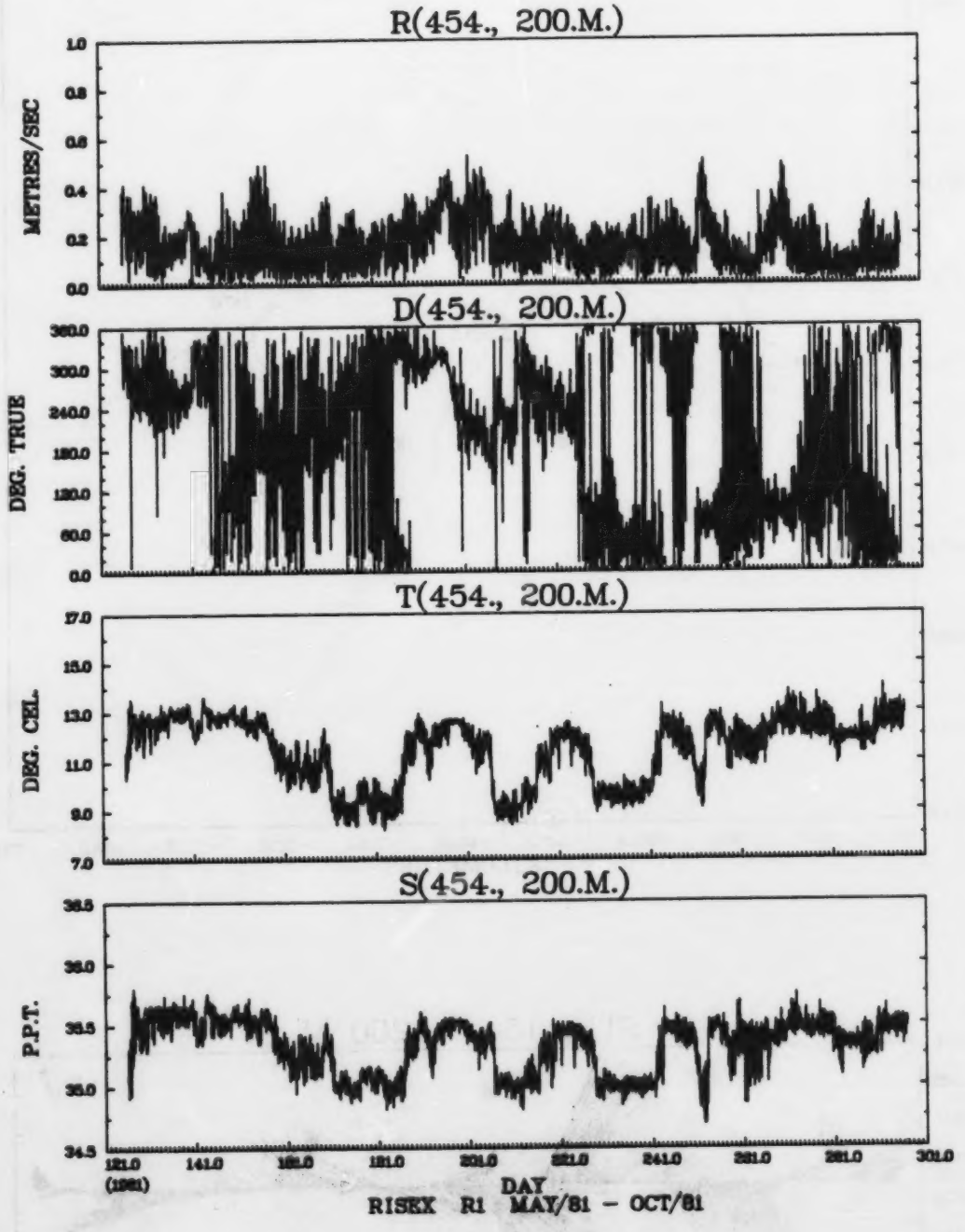
STN. 454, 200 M.

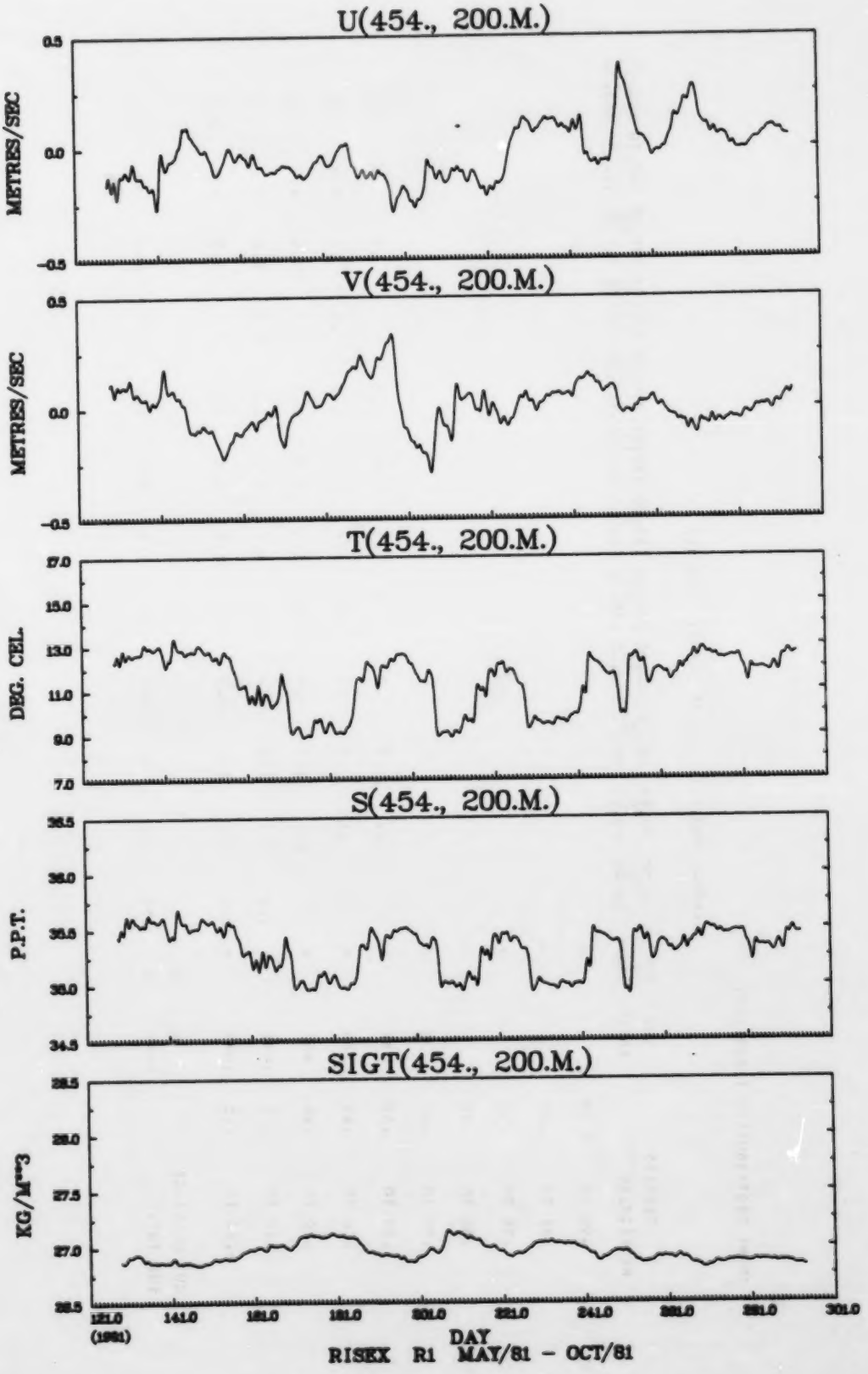


STN. 454, 200 M.



RISEX R1 MAY/81 – OCT/81


R(454., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(454., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(454., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(454., 200.M.)
P.P.T.
36.5
36.0
35.5
35.0
34.5
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81


U(454., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(454., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(454., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
S(454., 200.M.)
P.P.T.
36.5
36.0
35.5
35.0
34.5
SIGT(454., 200.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(454., 200.M.) VS R(494., 200.M.)

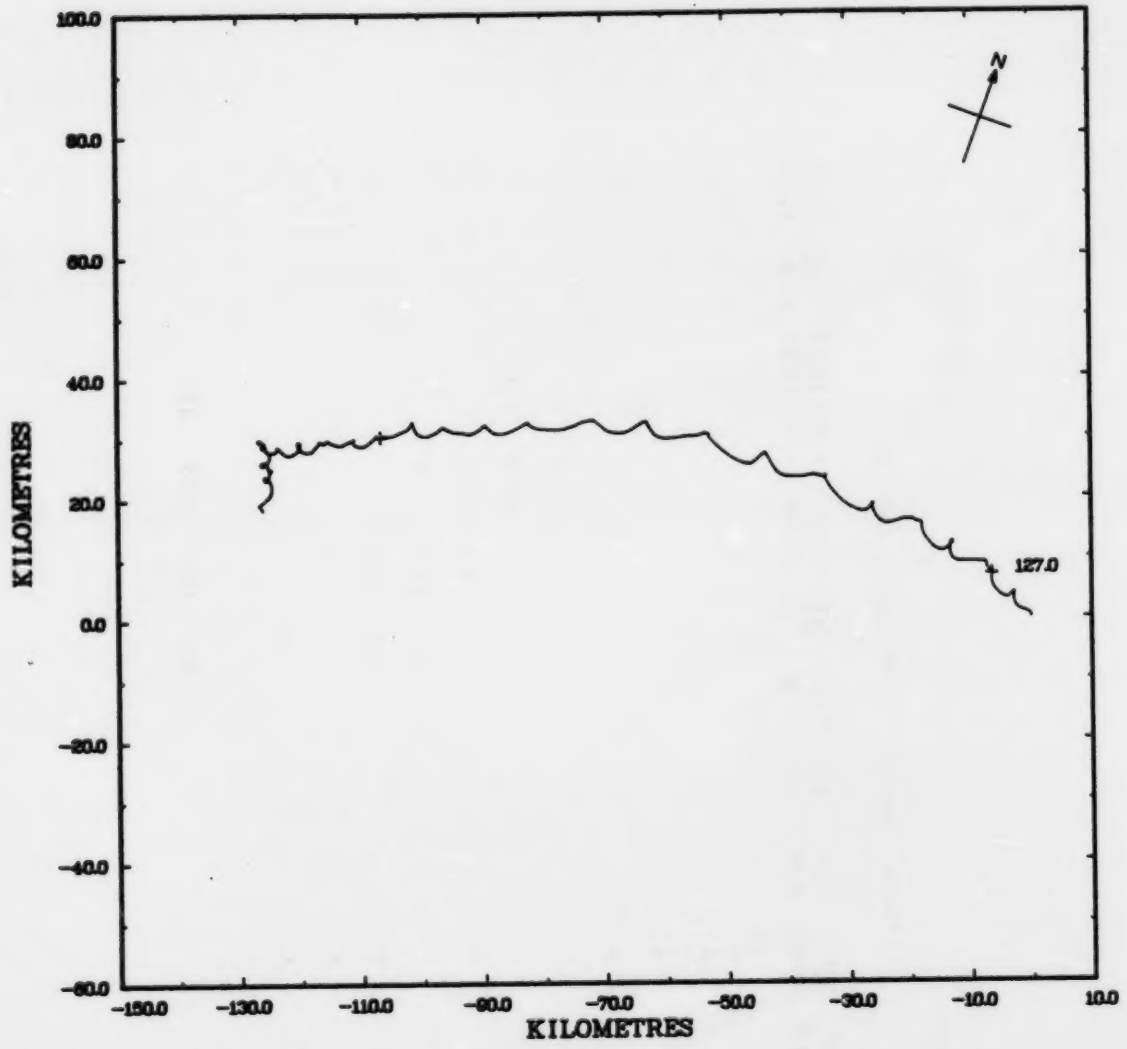
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60	2	*								.0				
.40 TO	.50	58	*		.0	.3	.0		.1	.4	.2		.2	.2	
.30 TO	.40	289	*	.0	.1	.7	.5	.2	.6	.7	1.1	.4	.6	2.0	.0
.20 TO	.30	962	*	.7	1.1	1.7	1.5	.8	1.6	1.9	2.7	2.9	3.4	4.1	1.1
.10 TO	.20	1691	*	2.9	3.4	3.3	3.2	2.1	2.2	3.4	4.0	4.7	5.0	3.5	3.4
-.00 TO	.10	1097	*	2.6	2.4	2.3	2.3	2.1	1.5	1.8	2.3	2.6	2.0	2.2	2.5
OUT OF RANGE		0	0												
SUB TOTAL		4099	0	254	292	340	309	214	249	339	426	436	456	494	288

JOINT DISTRIBUTION (PERCENT)

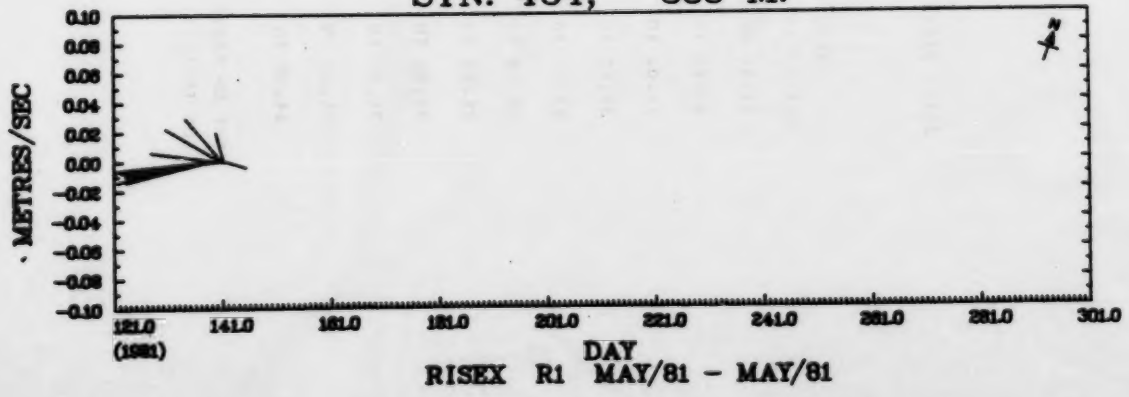
T(454., 200.M.) VS S(454., 200.M.)

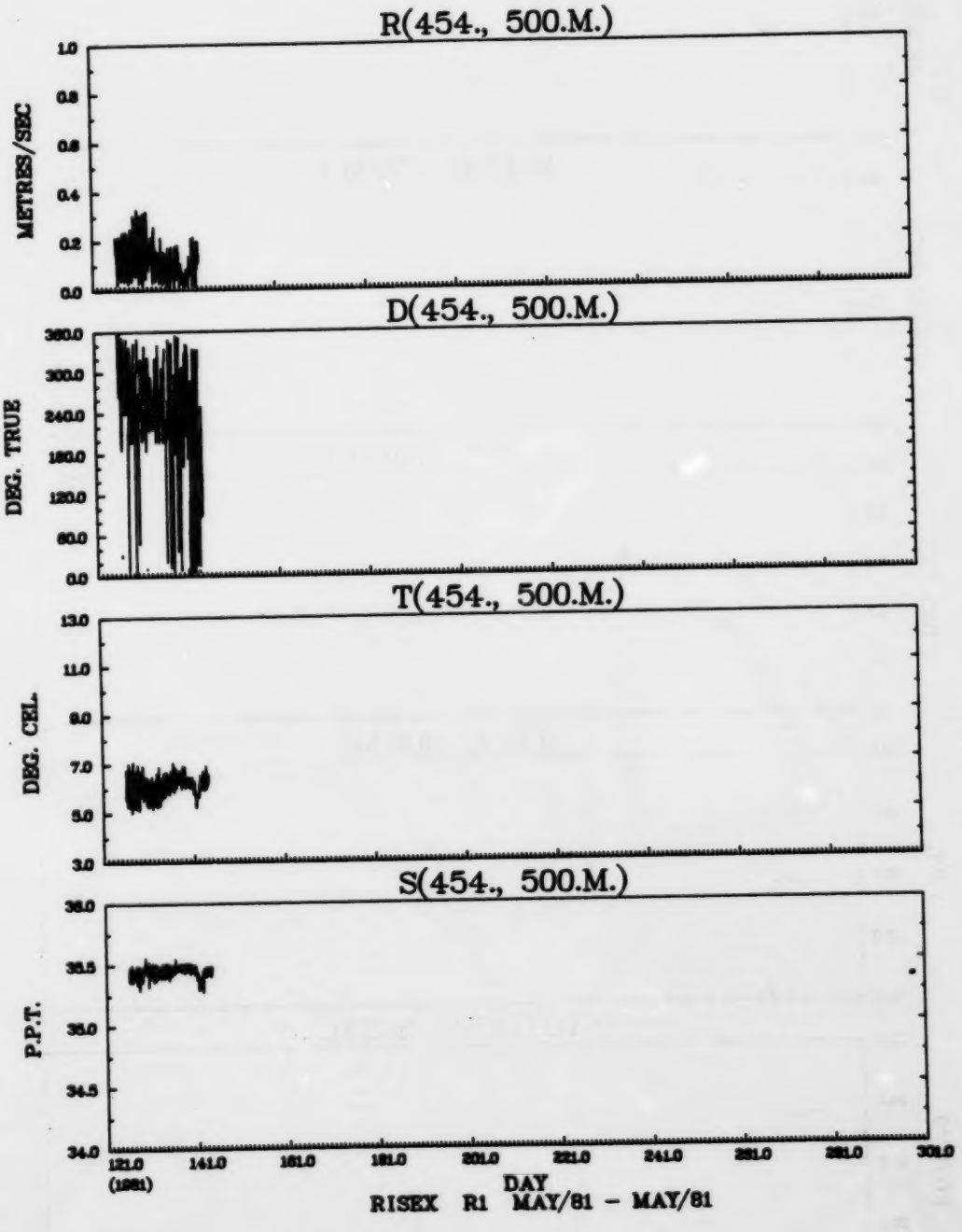
DEG. CEL. P.P.T.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80	187	*						1.7	2.8		
35.40 TO	35.60	1654	*						38.8	1.5		
35.20 TO	35.40	1070	*					3.8	22.3			
35.00 TO	35.20	747	*				1.1	16.5	.7			
34.80 TO	35.00	437	*				2.5	8.1				
34.60 TO	34.80	4	*					.1				
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		4099	0				148	1167	2605	179		

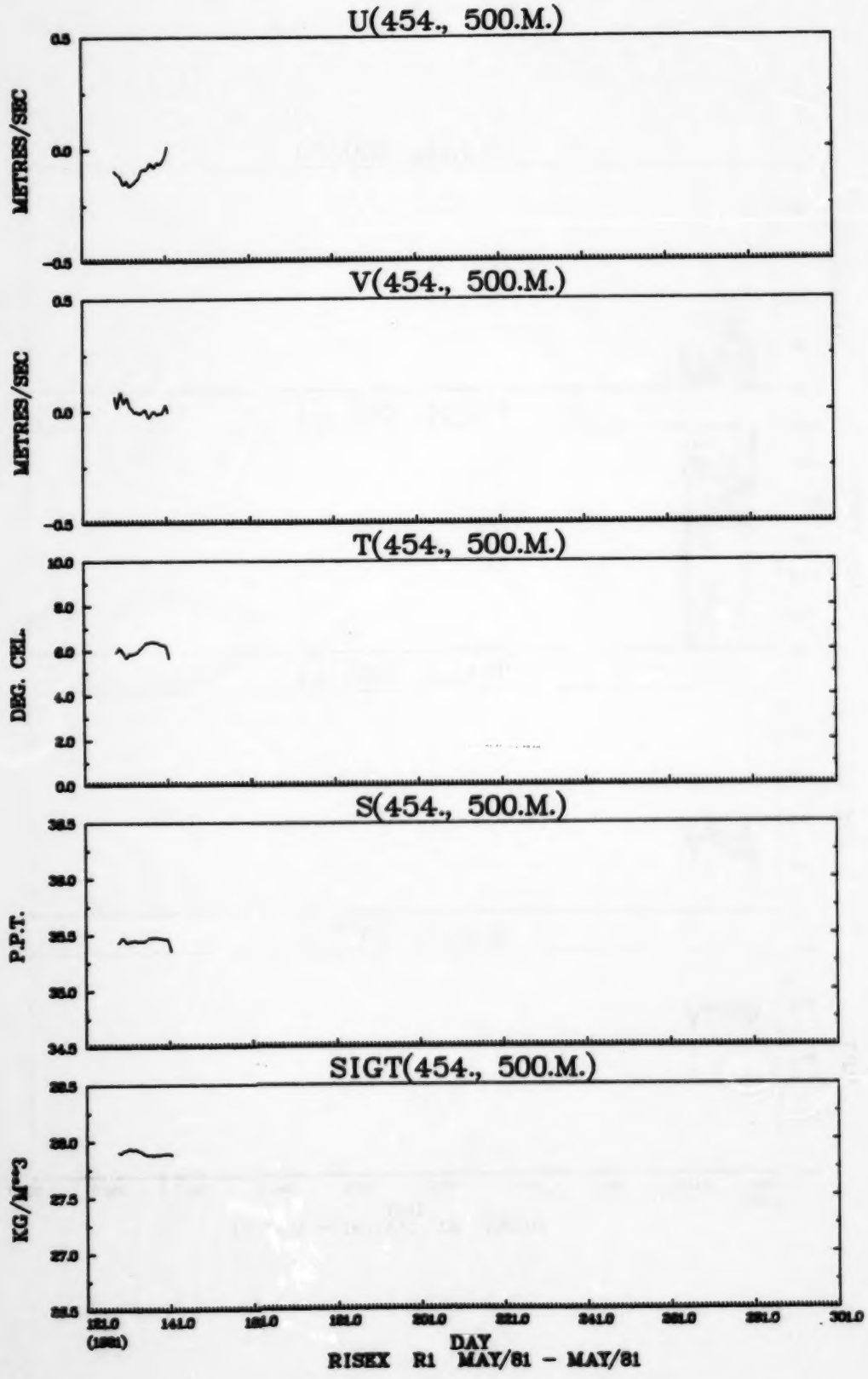
STN. 454, 500 M.



STN. 454, 500 M.




R(454., 500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(454., 500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(454., 500.M.)
DEG. CEL.
13.0
11.0
9.0
7.0
5.0
3.0
S(454., 500.M.)
P.P.T.
36.0
35.5
35.0
34.5
34.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - MAY/81


U(454., 500.M.)
METRES/SEC
0.5
0.0
-0.5
V(454., 500.M.)
METRES/SEC
0.5
0.0
-0.5
T(454., 500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
S(454., 500.M.)
P.P.T.
36.5
36.0
35.5
35.0
34.5
SIGT(454., 500.M.)
KG/M**3
28.5
28.0
27.5
27.0
26.5
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - MAY/81

JOINT DISTRIBUTION (PERCENT)

D(454.: 500.M.) VS P(454.: 500.M.)

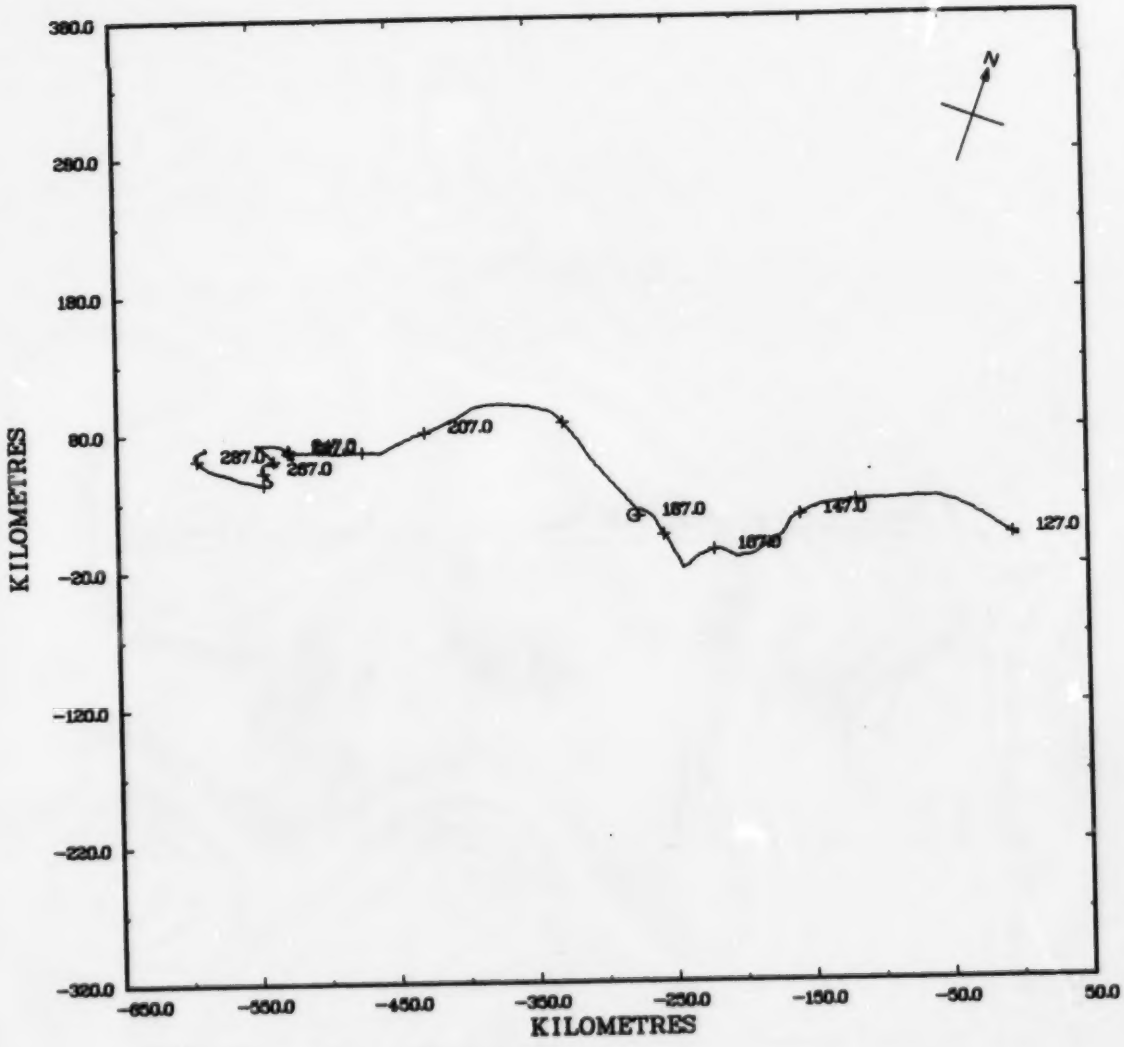
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	3	*									.7			
.20 TO	.30	57	*								2.3	4.1	4.6	2.1	
.10 TO	.20	185	*				.9	1.1	1.1	5.2	10.7	9.6	5.5	5.9	2.1
-.00 TO	.10	194	*	2.3	1.4	1.1	2.3	2.1	2.7	4.3	5.0	7.7	6.4	5.7	3.2
OUT OF RANGE		0	0												
SUB TOTAL		439	0	10	6	5	14	14	17	42	79	97	72	60	23

JOINT DISTRIBUTION (PERCENT)

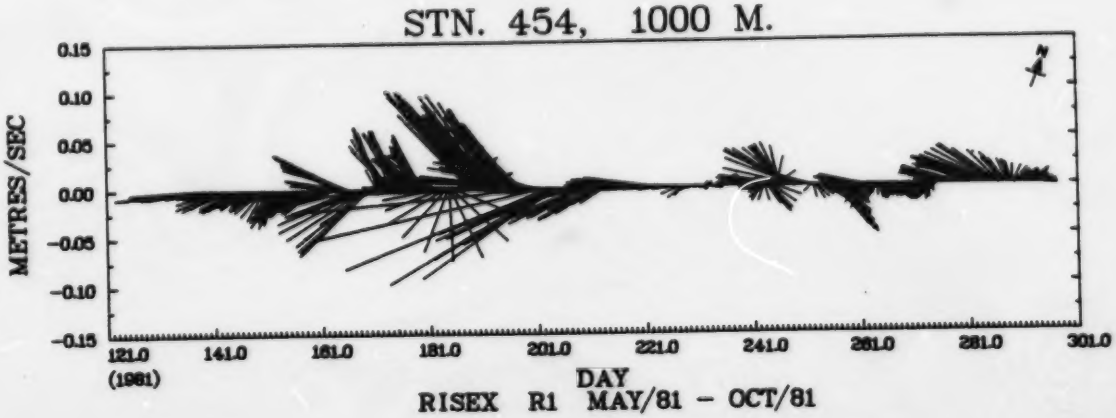
T(454., 500.M.) VS S(454., 500.M.)

DEG. CEL. P.P.T.		SUB TOTAL	OUT OF RANGE	1.00 TO 3.00	3.00 TO 5.00	5.00 TO 7.00	7.00 TO 9.00	9.00 TO 11.00	11.00 TO 13.00	13.00 TO 15.00	15.00 TO 17.00	17.00 TO 19.00
36.40 TO	36.60		*									
36.20 TO	36.40		*									
36.00 TO	36.20		*									
35.80 TO	36.00		*									
35.60 TO	35.80		*									
35.40 TO	35.60	400	*			91.1						
35.20 TO	35.40	39	*			8.9						
35.00 TO	35.20		*									
34.80 TO	35.00		*									
34.60 TO	34.80		*									
34.40 TO	34.60		*									
OUT OF RANGE		0	0									
SUB TOTAL		439	0			439						

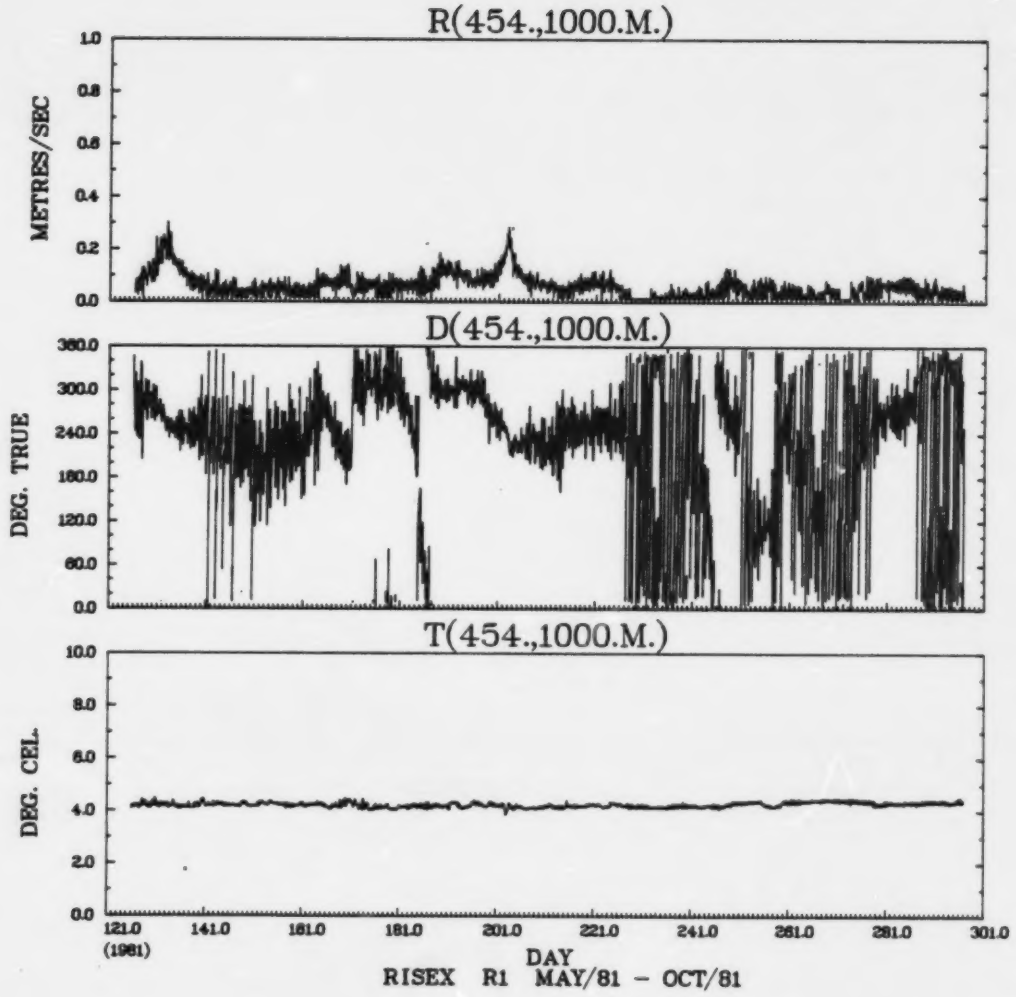
STN. 454, 1000 M.

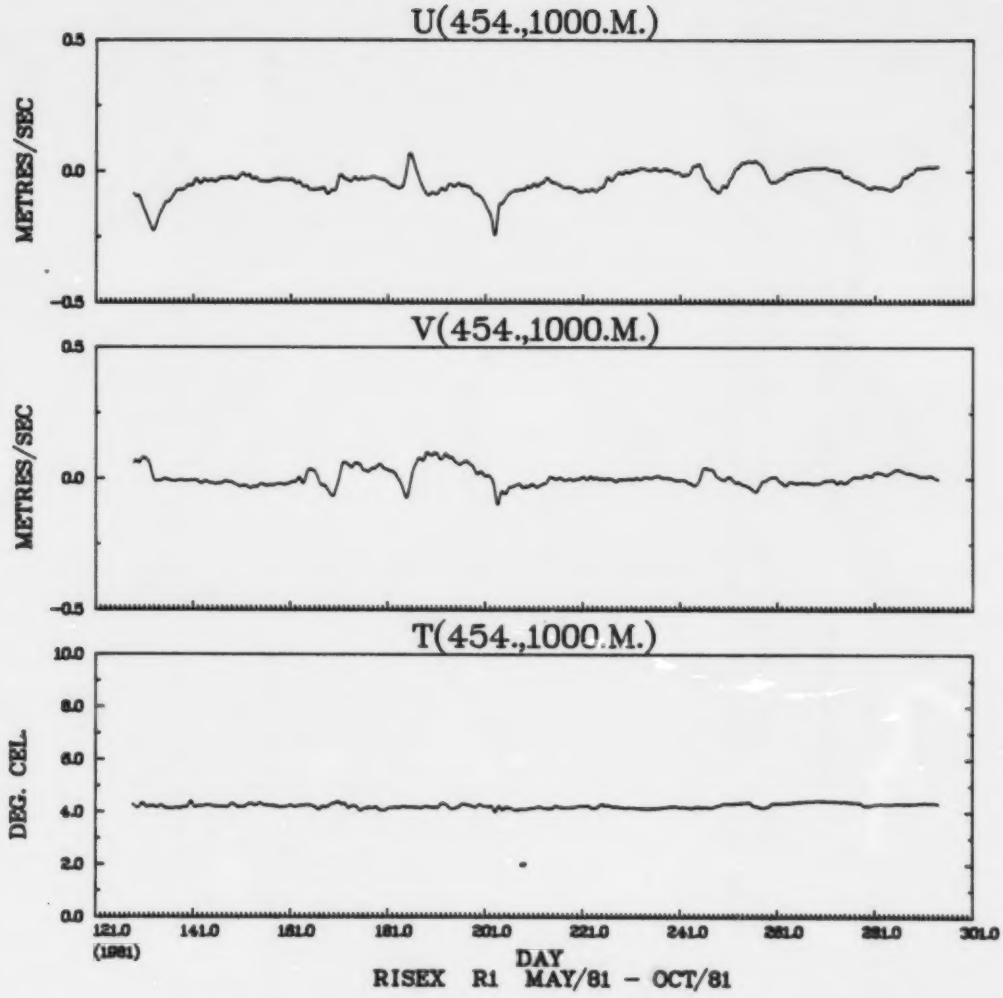


STN. 454, 1000 M.



RISEX R1 MAY/81 - OCT/81


R(454.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(454.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(454.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81


U(454.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(454.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(454.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(454.,1000.M.) VS R(454.,1000.M.)

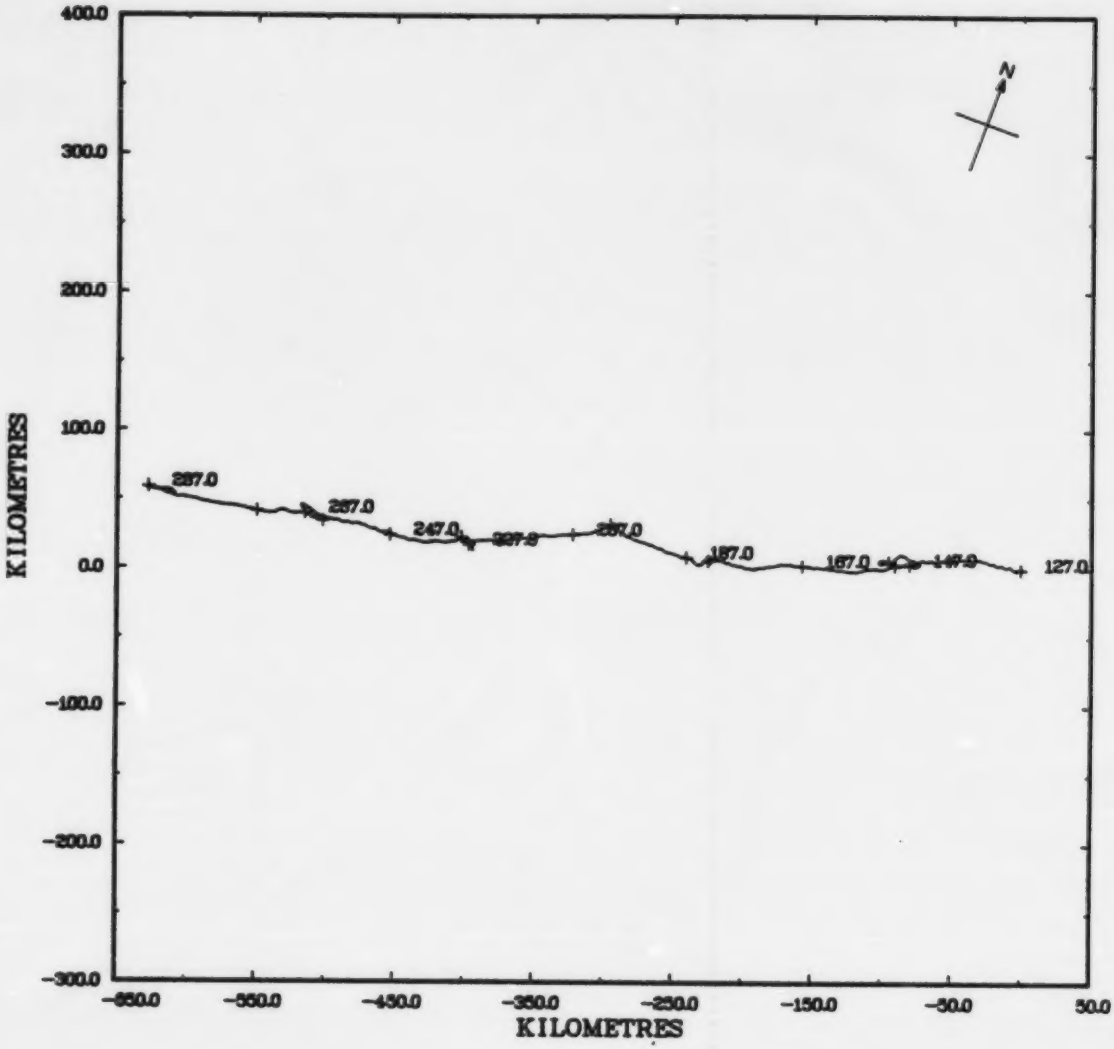
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	63	*								.4	.9	.2		
.10 TO	.20	524	*				.1	.1	.1	.4	2.7	4.4	3.1	1.8	.1
-.00 TO	.10	3504	*	2.7	2.4	3.2	4.8	4.0	4.2	7.6	14.2	16.6	13.6	8.0	4.2
OUT OF RANGE		4	4												
SUB TOTAL		4095	4	111	98	130	201	169	174	327	707	898	694	403	179

HISTOGRAM OF T(494.,1000.,F.) DEG. CEL.

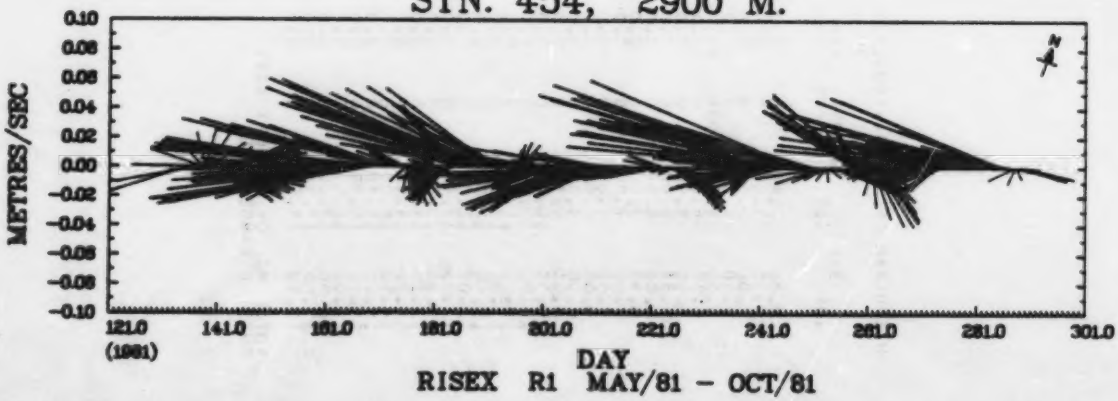
BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT	
1.00	1.50	0	0.0	
1.50	2.00	0	0.0	
2.00	2.50	0	0.0	
2.50	3.00	7	0.2	*
3.00	3.50	4088	99.7	**********
3.50	4.00	4	0.1	*
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4099
OUTSIDE RANGE 0

STN. 454, 2900 M.



STN. 454, 2900 M.



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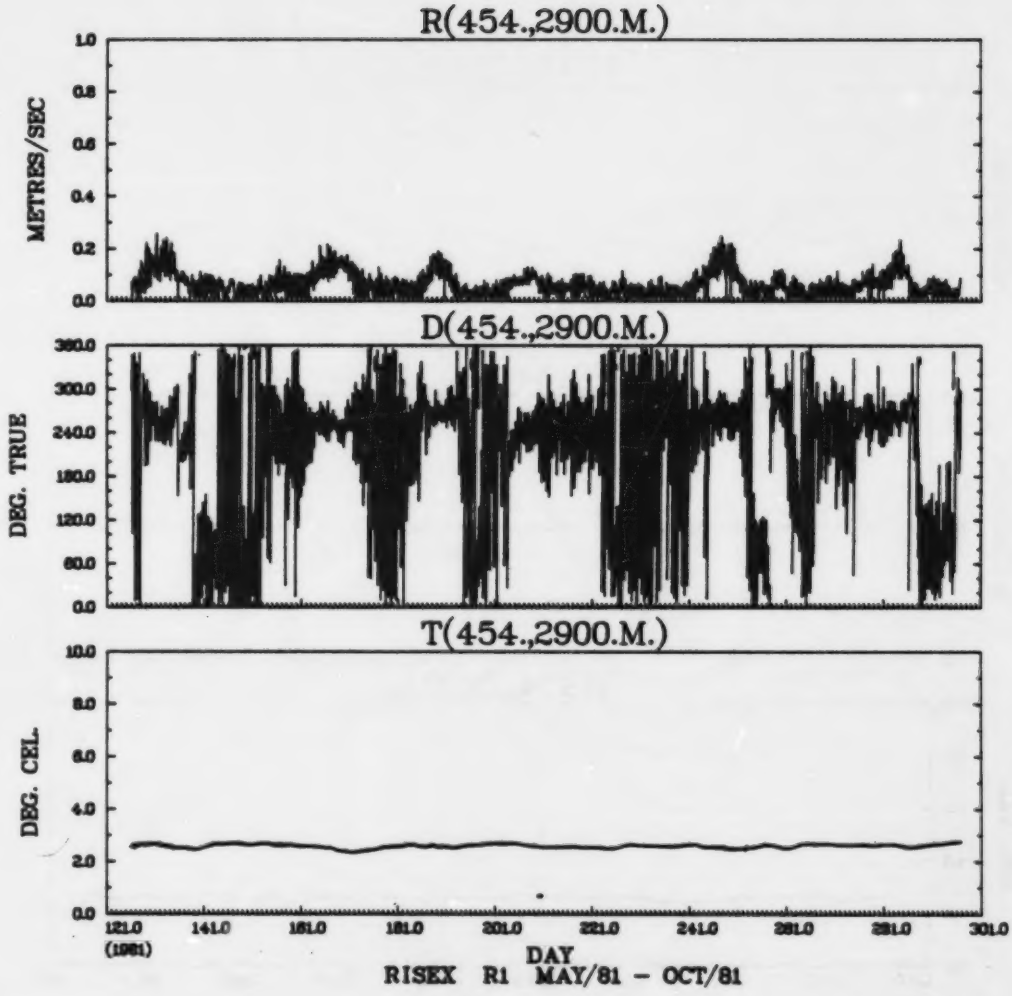
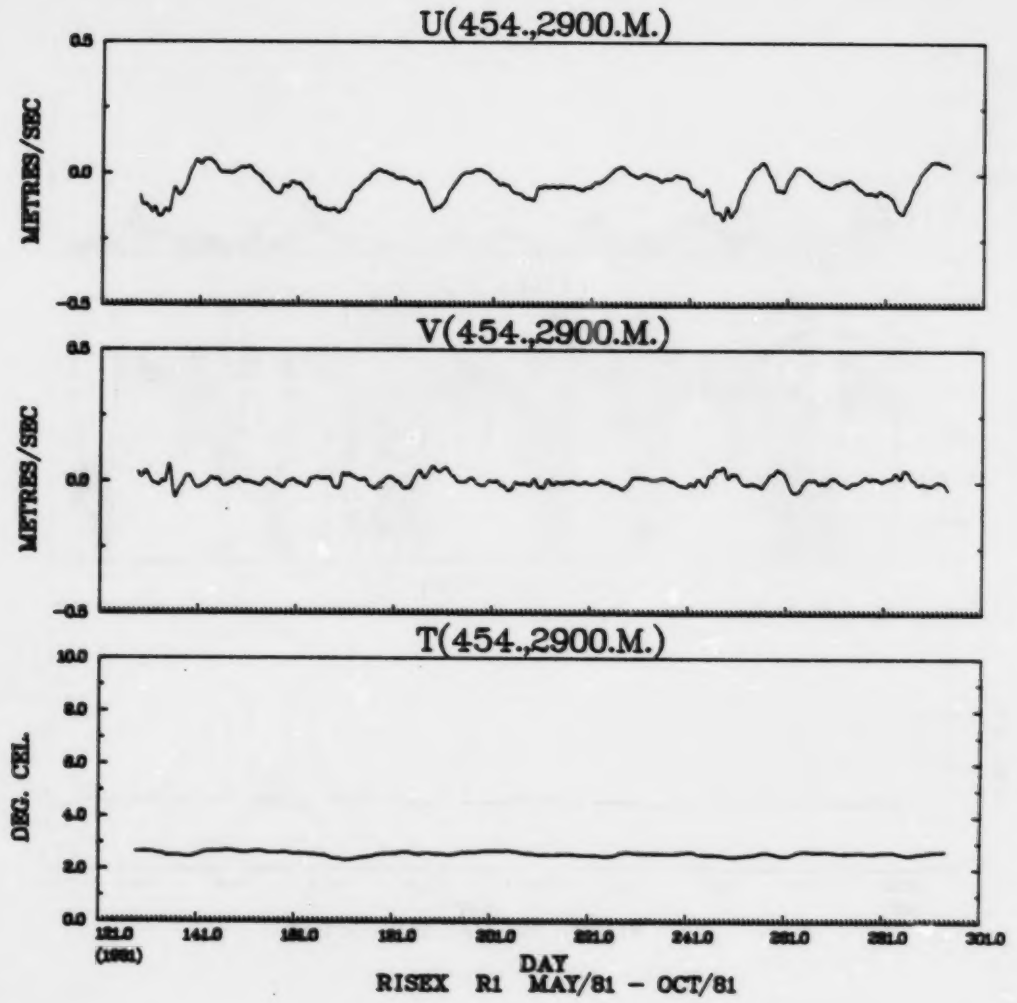

R(454.,2900.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(454.,2900.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(454.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81


U(454.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
V(454.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
T(454.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(454.,2900.M.) VS R(454.,2900.M.)

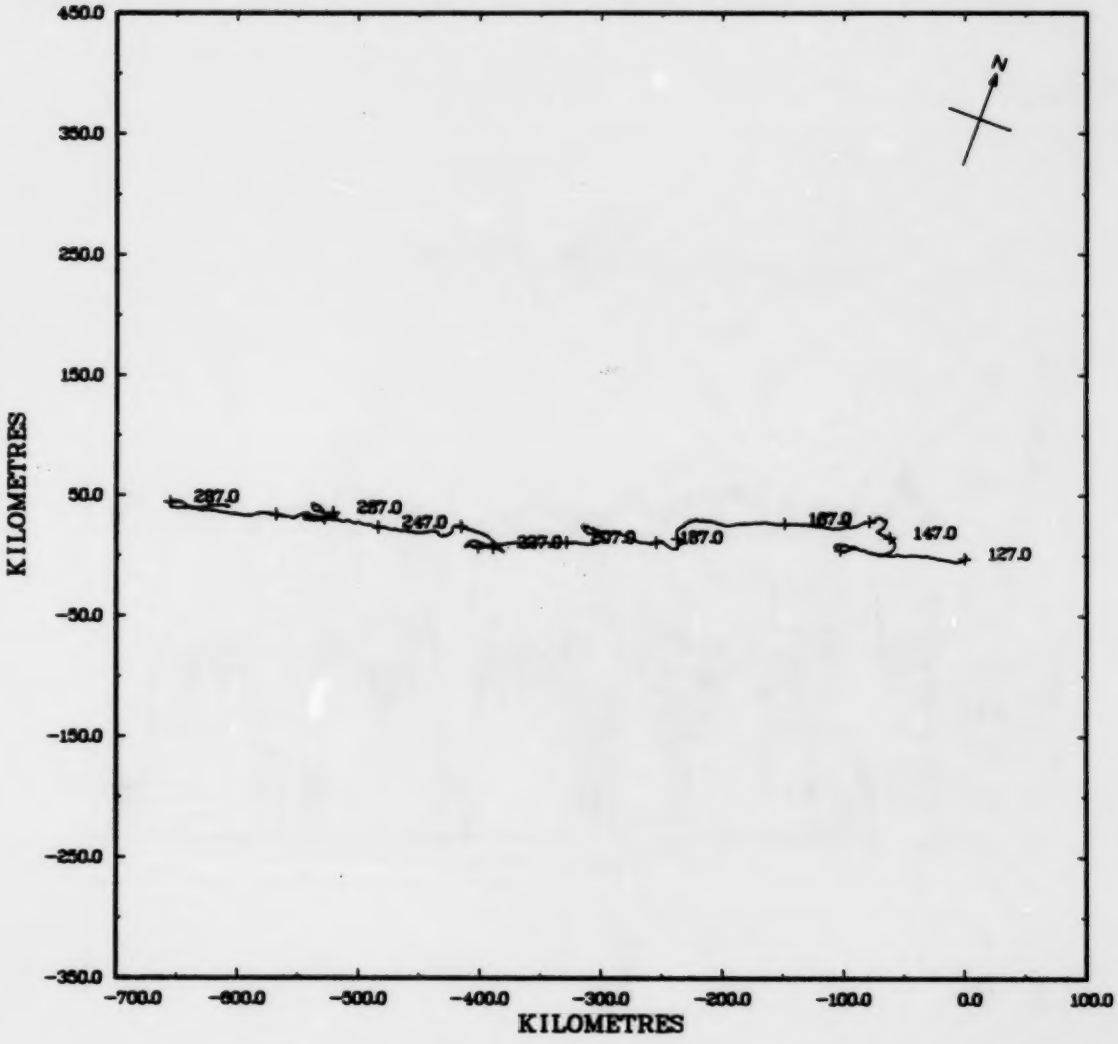
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	44	*								.1	.7	.3		
.10 TO	.20	720	*				.1	.1	.0	.1	2.7	8.6	5.7	.2	
-.00 TO	.10	3335	*	3.0	3.5	4.2	5.4	5.3	4.8	7.7	10.4	15.9	11.8	6.3	3.1
OUT OF RANGE		0	0												
SUB TOTAL		4099	0	122	143	172	223	223	196	322	543	1031	729	267	128

HISTOGRAM OF T(454.,2900.F.) DEG. CFL.

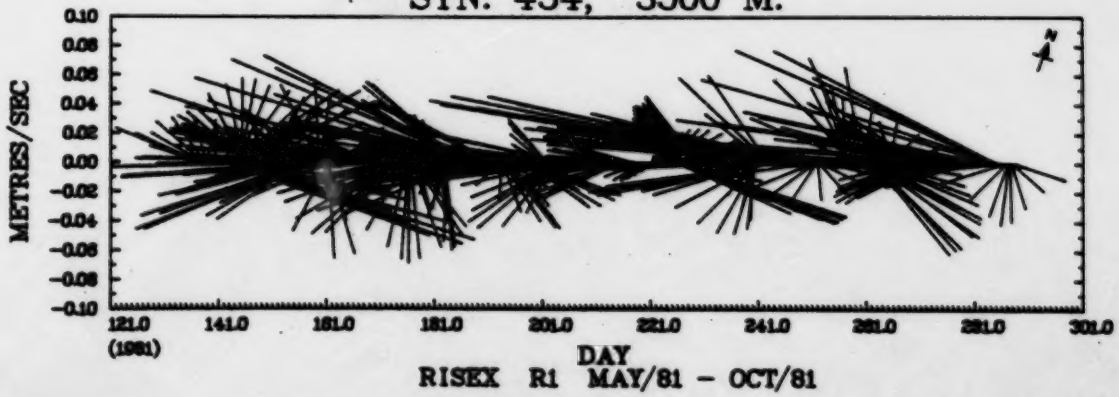
BAND .GE.	.LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	360	8.8	**********
2.50	3.00	3739	91.2	**********
3.00	3.50	0	0.0	
3.50	4.00	0	0.0	
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4099
OUTSIDE RANGE 0

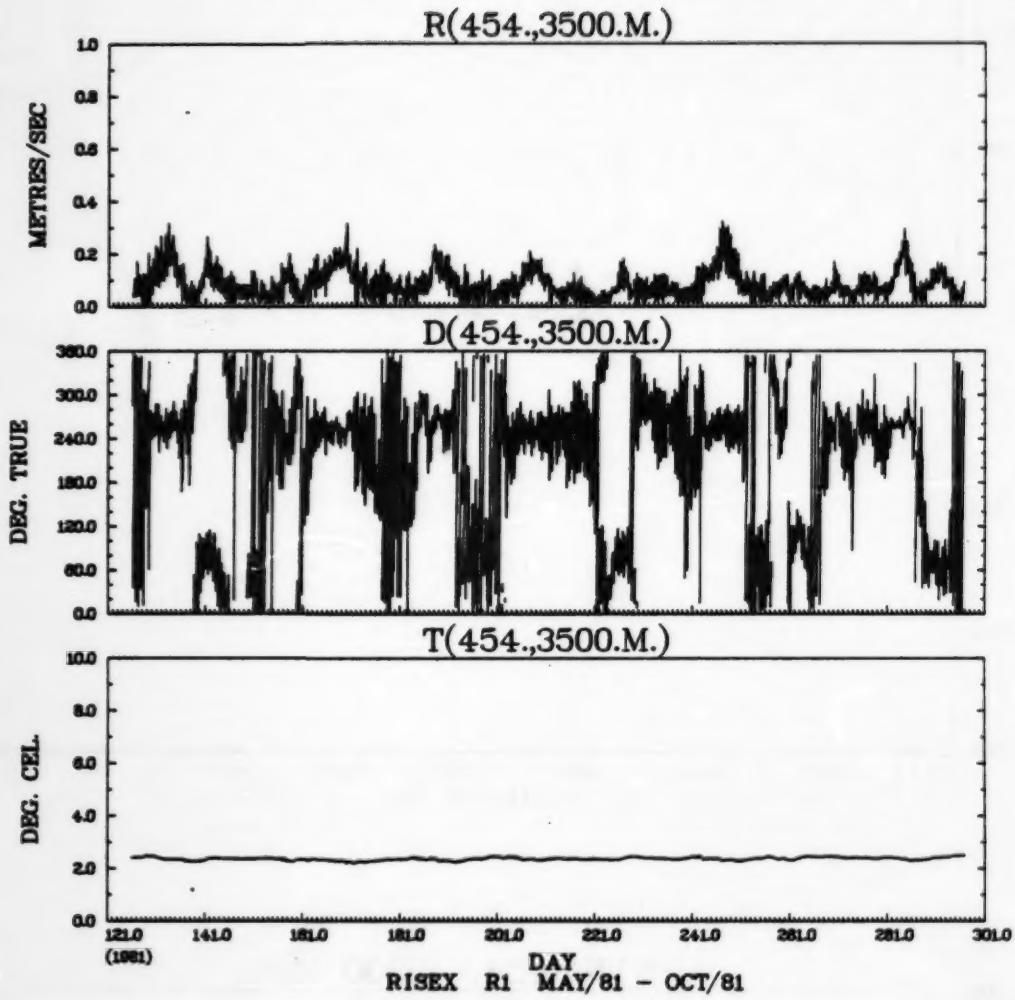
STN. 454, 3500 M.

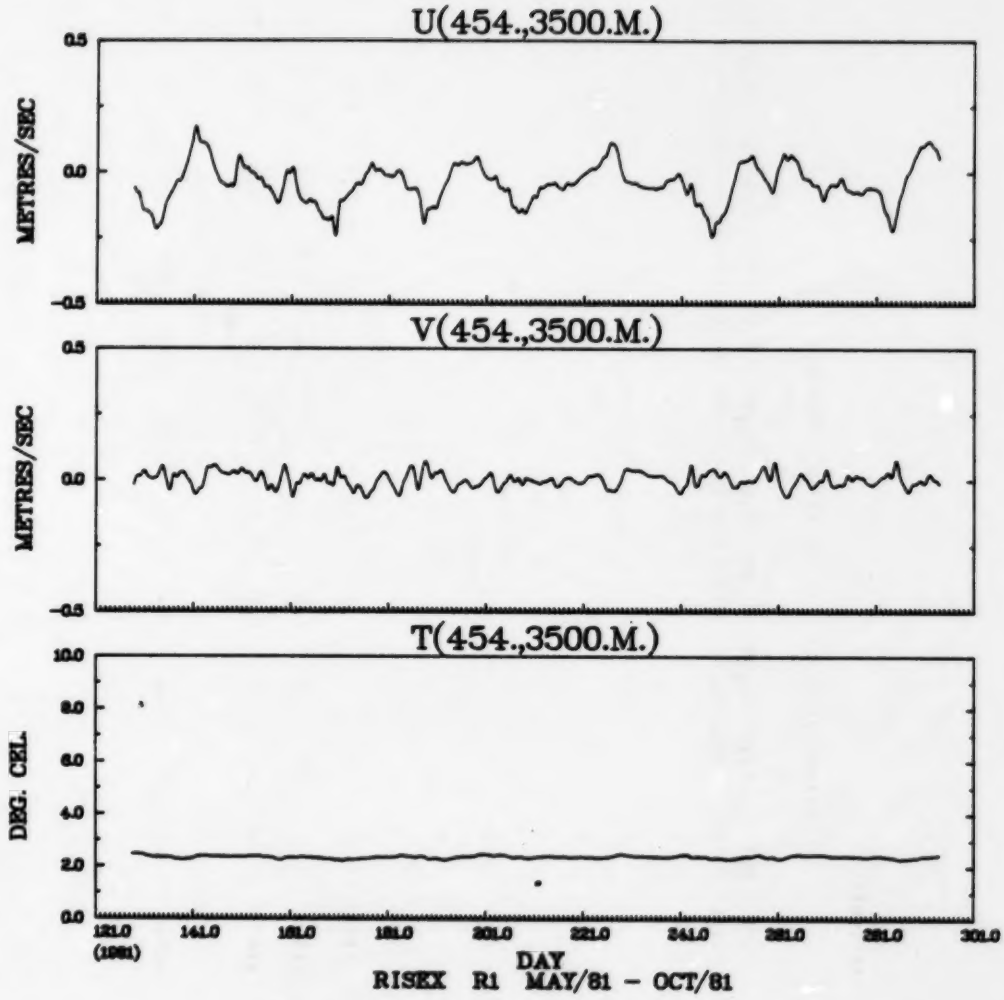


STN. 454, 3500 M.



RISEX R1 MAY/81 – OCT/81


R(454.,3500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(454.,3500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(454.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81


U(454.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
V(454.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
T(454.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R1 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(454.,3500.M.) VS R(454.,3500.M.)

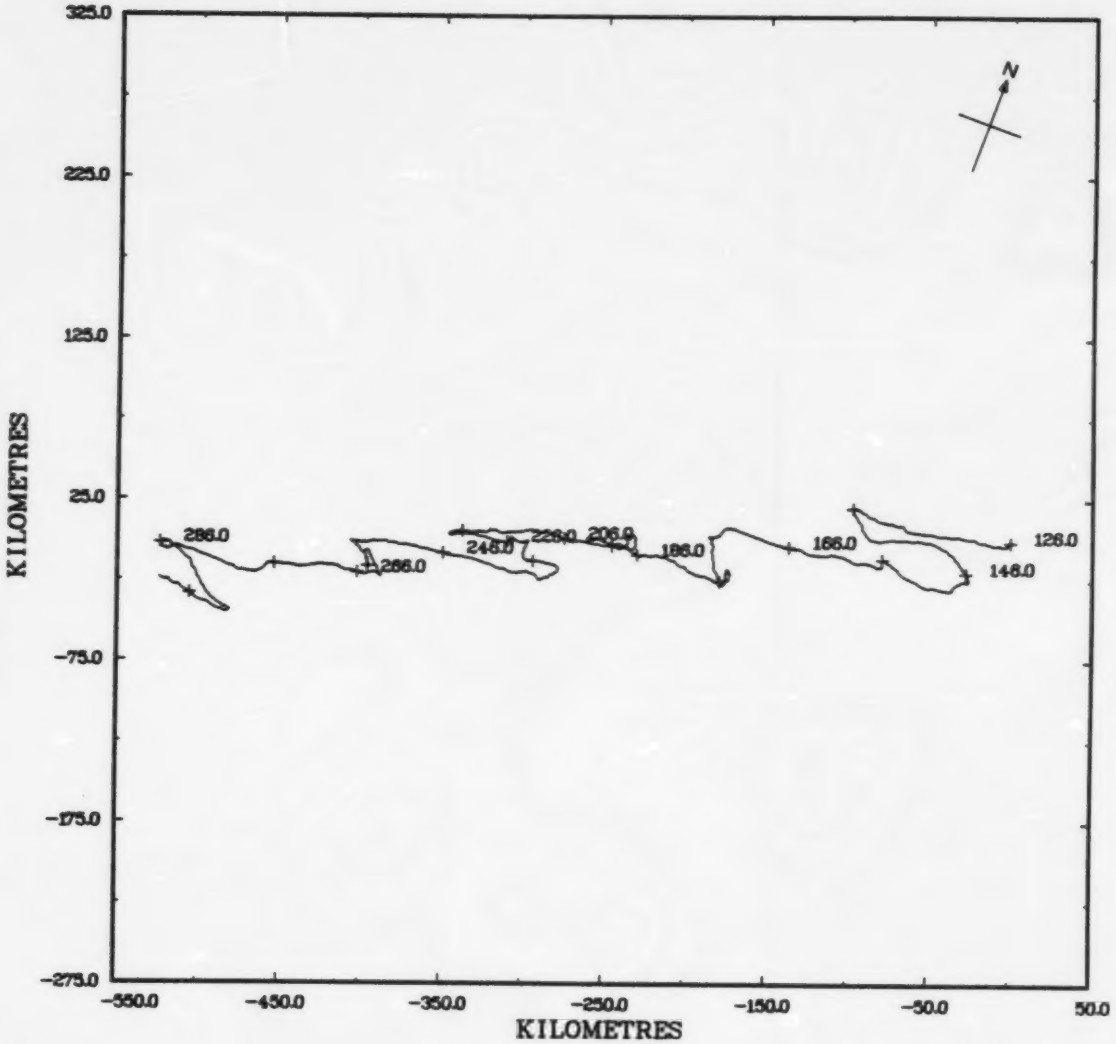
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	5	*									.1			
.20 TO	.30	155	*			.0	.1				.2	2.5	.9		
.10 TO	.20	1152	*	.3	1.1	2.0	2.1	.8	.4	.5	3.9	11.9	4.4	.6	.2
-.00 TO	.10	2787	*	3.0	3.7	5.1	3.9	3.1	3.8	5.9	8.6	13.4	9.1	5.1	3.3
OUT OF RANGE		0	0												
SUB TOTAL		4099	0	133	194	294	251	163	173	265	518	1147	585	232	144

HISTOGRAM OF T(454.,3500.,M.) DEG. CEL.

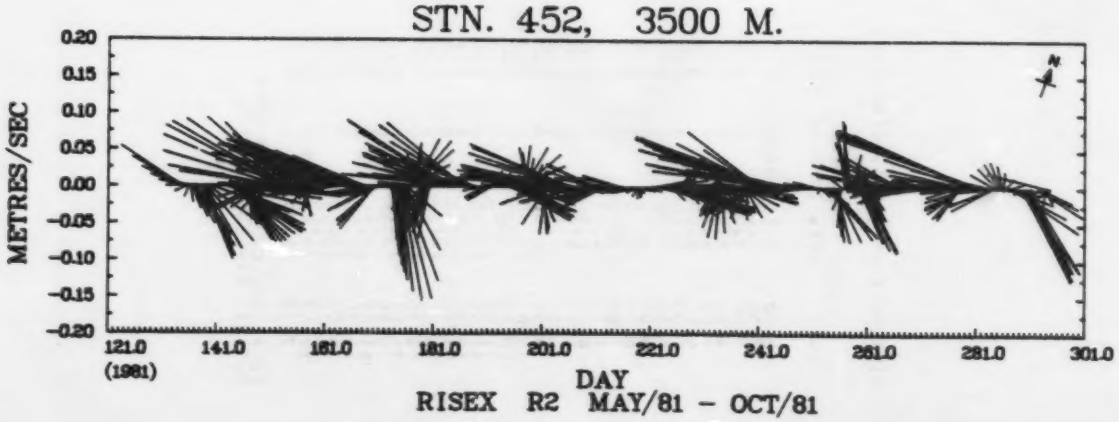
BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	4088	99.7	**********
2.50	3.00	11	.3	*
3.00	3.50	0	0.0	
3.50	4.00	0	0.0	
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4099
OUTSIDE RANGE 0

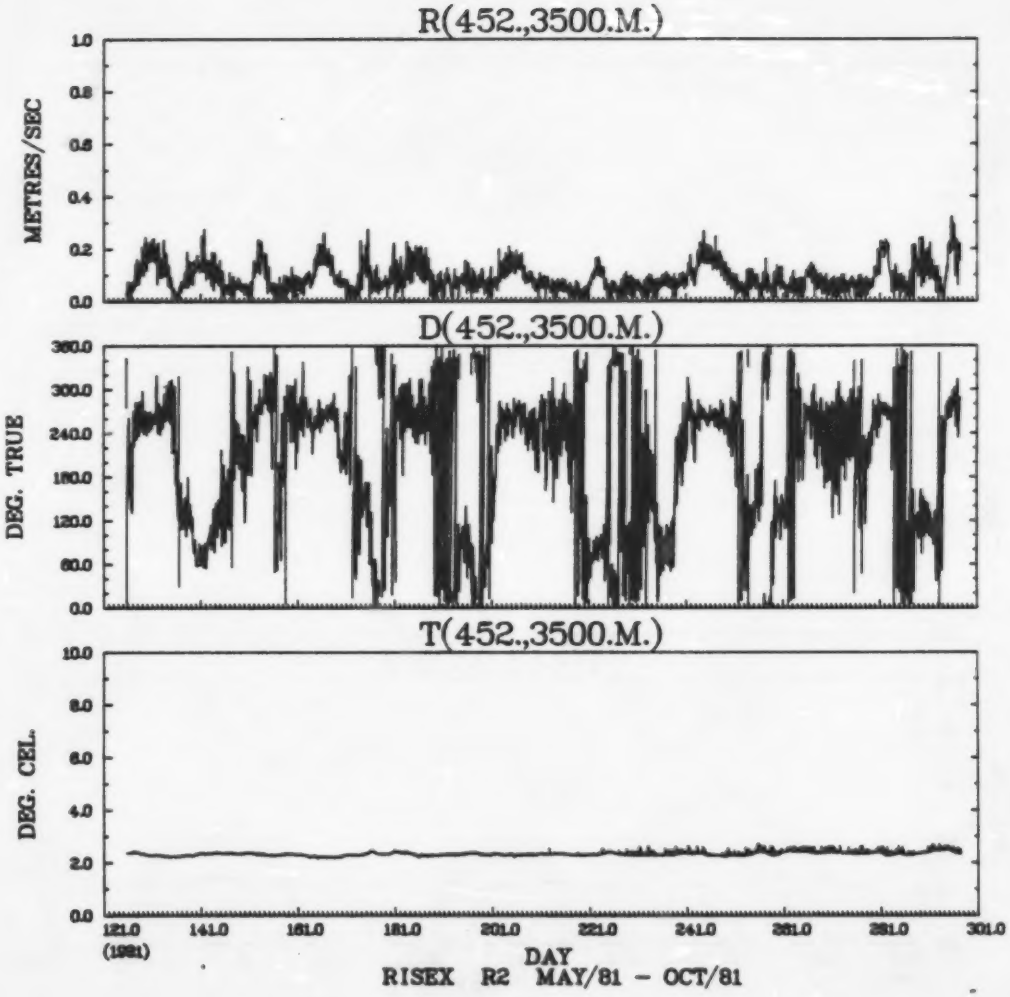
STN. 452, 3500 M.

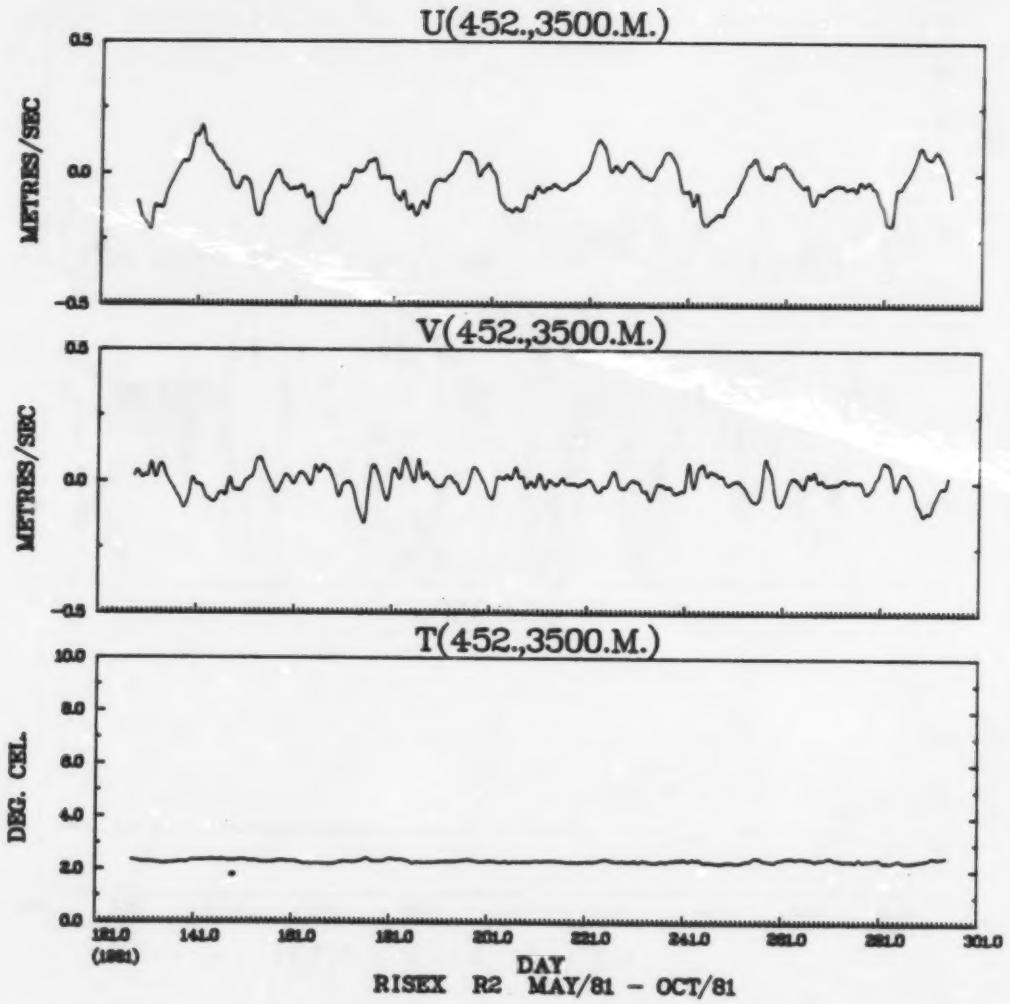


STN. 452, 3500 M.



RISEX R2 MAY/81 - OCT/81


R(452.,3500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(452.,3500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(452.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R2 MAY/81 - OCT/81


U(452.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
V(452.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
T(452.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R2 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(452.,3500.M.) VS R(452.,3500.M.)

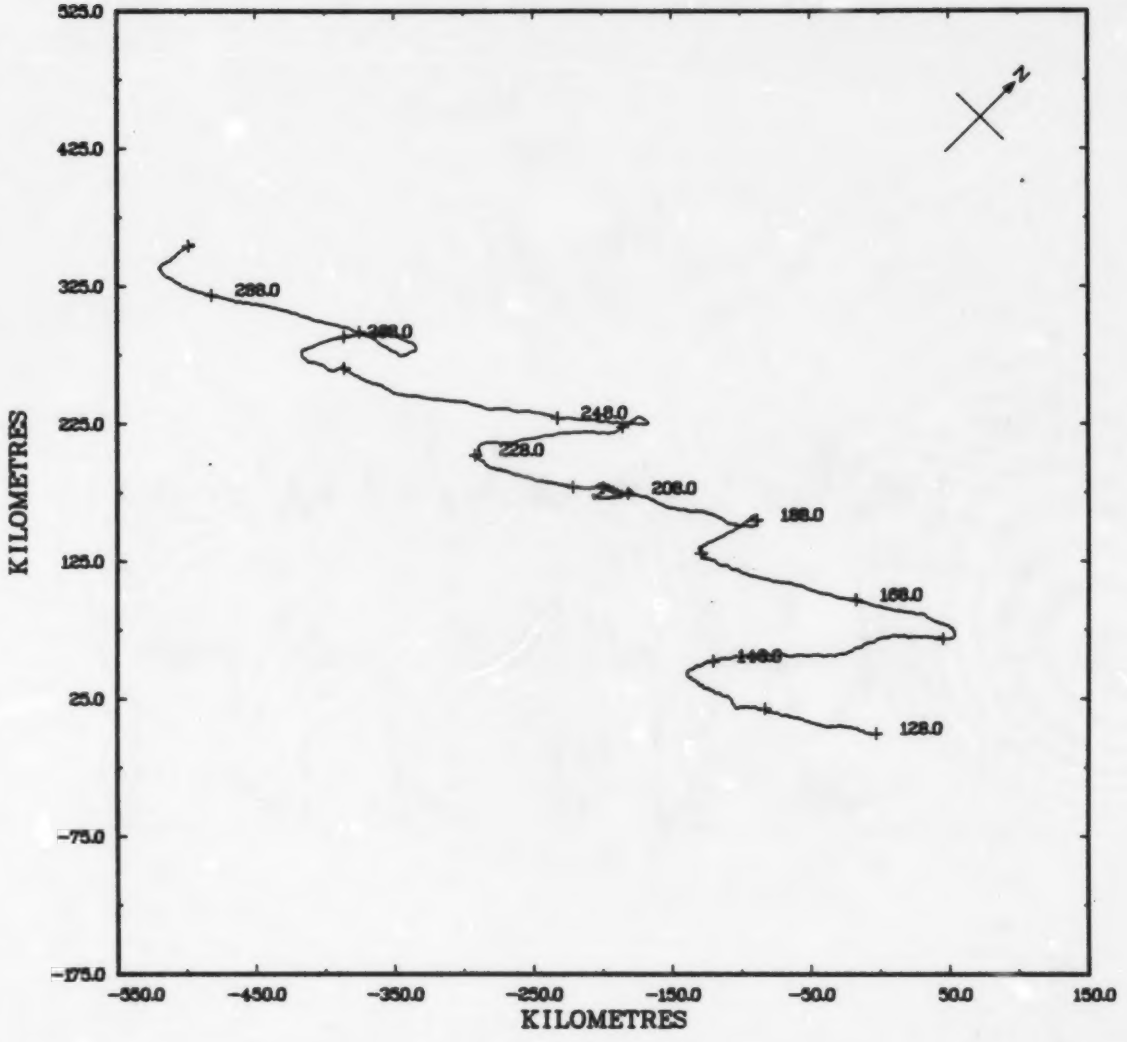
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	4	*										.1		
.20 TO	.30	194	*			.2	.2	.3	.1			1.8	2.0	.1	
.10 TO	.20	1236	*	.1	.3	2.7	2.9	2.3	.8	.4	1.1	11.5	6.4	1.0	.2
-.00 TO	.10	2689	*	2.1	2.8	4.4	5.4	6.2	4.5	6.2	9.5	11.1	7.2	3.6	2.1
OUT OF RANGE		0	0												
SUB TOTAL		4123	0	94	131	302	351	362	225	271	440	1006	649	194	98

HISTOGRAM OF T(452.,3900.,M.) DEG. CFL.

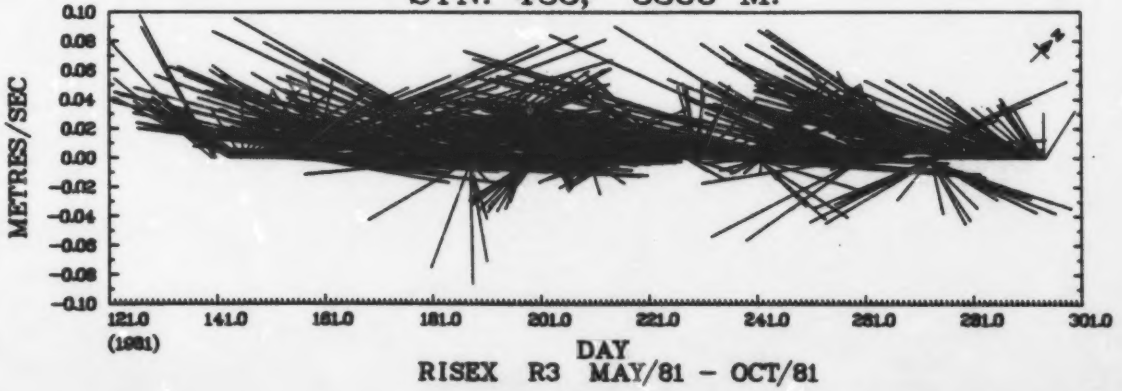
BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	4012	97.3	**********
2.50	3.00	111	2.7	***
3.00	3.50	0	0.0	
3.50	4.00	0	0.0	
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

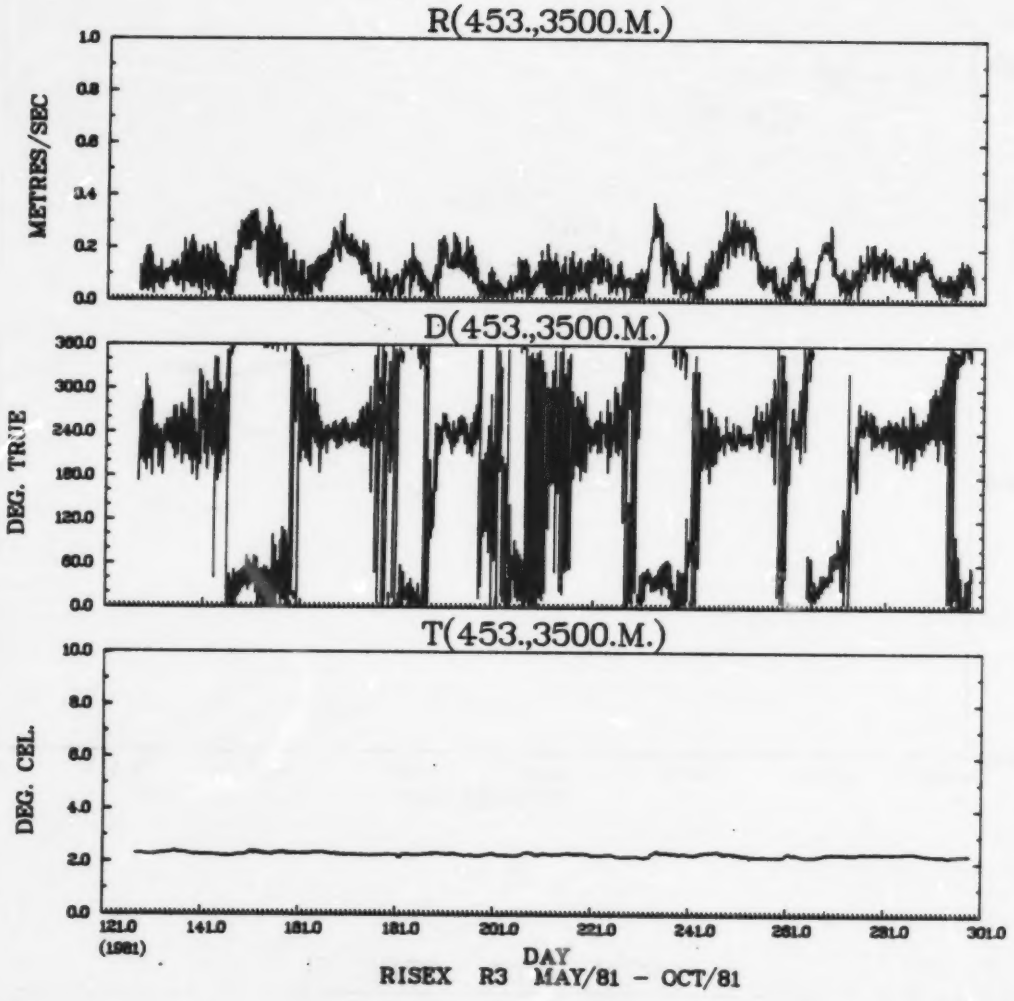
TOTAL NO. OF SAMPLES 4123
OUTSIDE RANGE 0

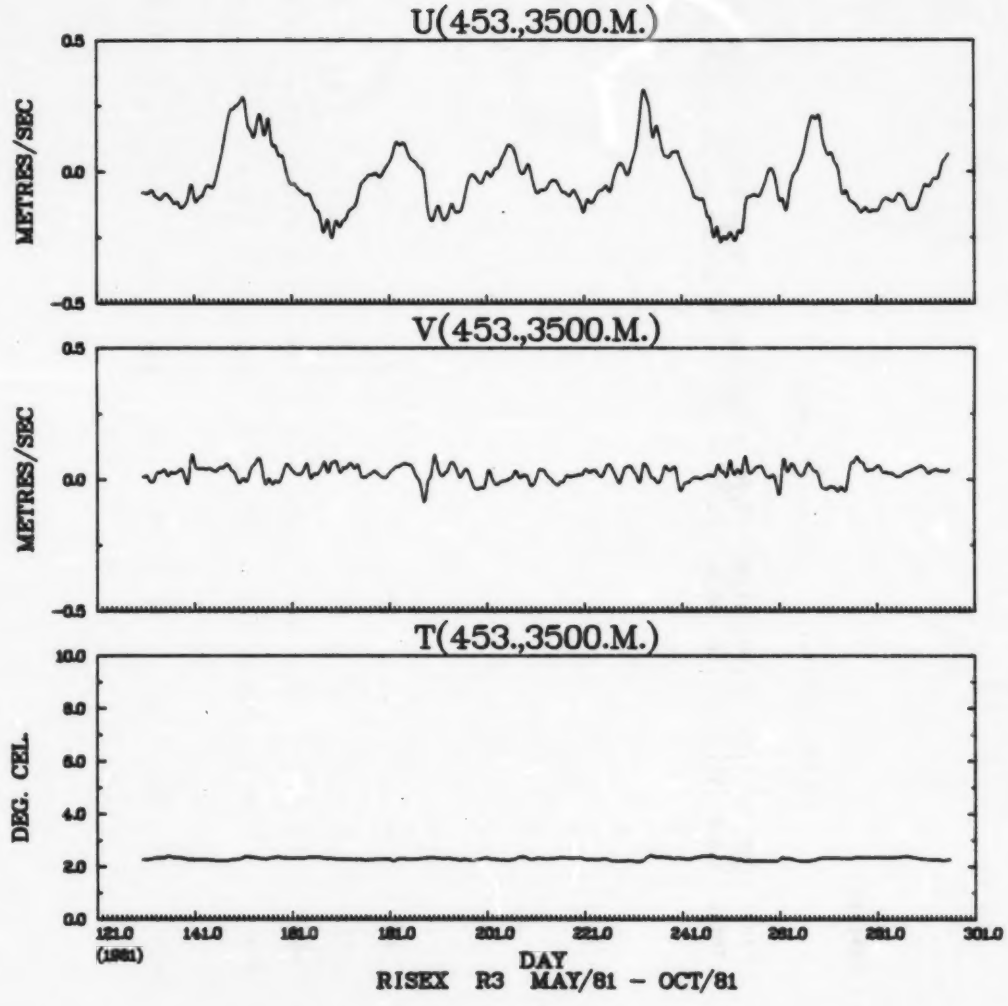
STN. 453, 3500 M.



STN. 453, 3500 M.




R(453.,3500.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(453.,3500.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(453.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R3 MAY/81 - OCT/81


U(453.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
V(453.,3500.M.)
METRES/SEC
0.5
0.0
-0.5
T(453.,3500.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R3 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(453..3500.M.) VS R(453..3500.M.)

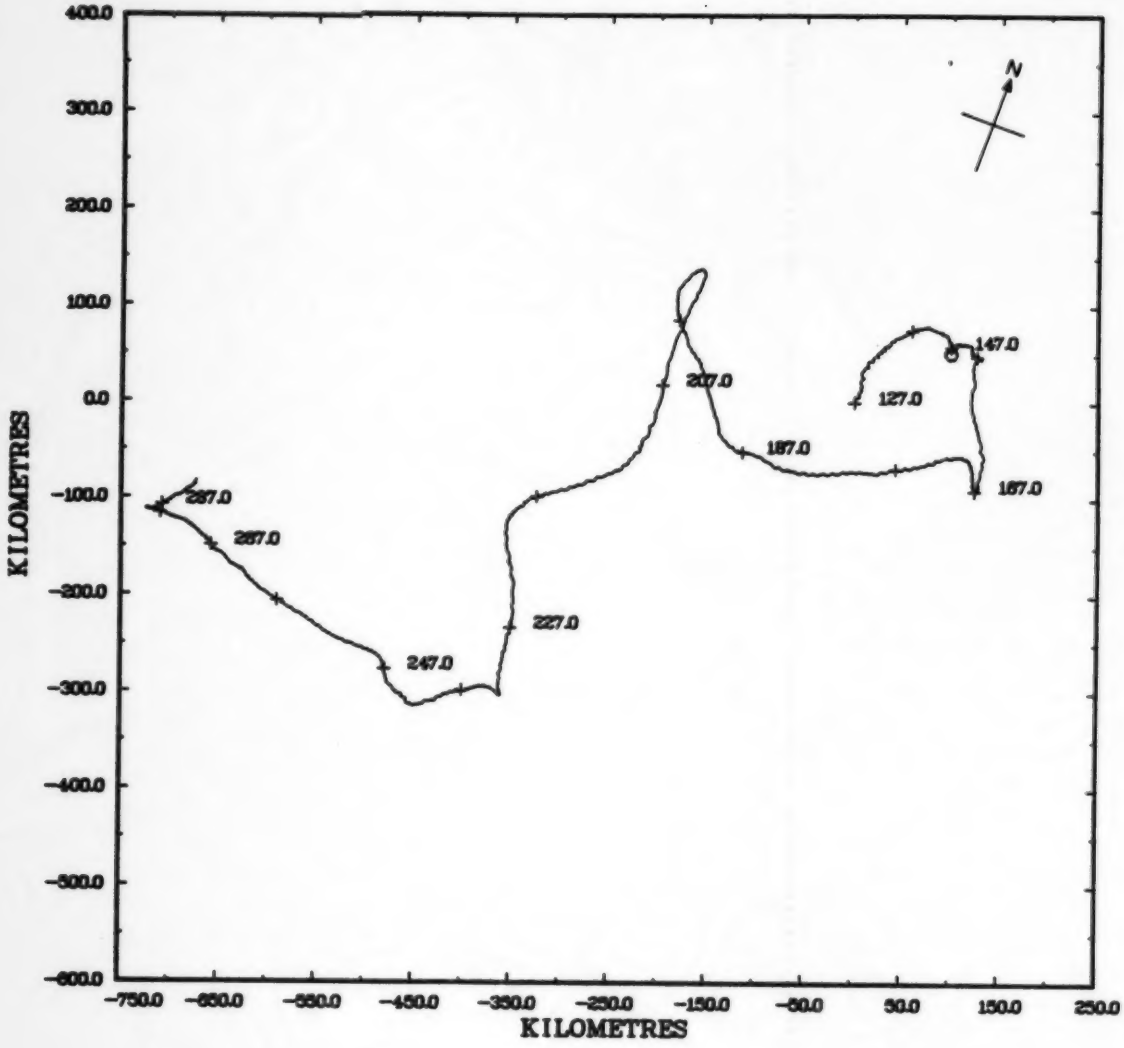
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40	60	*	.2	.8	.0					.3	.0			
.20 TO	.30	483	*	1.0	1.4	.3				.0	4.6	2.4	.0		.3
.10 TO	.20	1662	*	4.1	3.8	1.2	.2	.2	.4	2.0	12.0	12.9	2.3	.7	.7
-.00 TO	.10	1900	*	4.3	3.8	2.8	1.9	1.7	2.1	3.7	6.9	7.3	4.8	3.0	3.8
OUT OF RANGE		0	0												
SUB TOTAL		4105	0	397	487	176	87	78	104	235	980	931	293	152	185

HISTOGRAM OF T(453.,3900.M.) DEG. CEL.

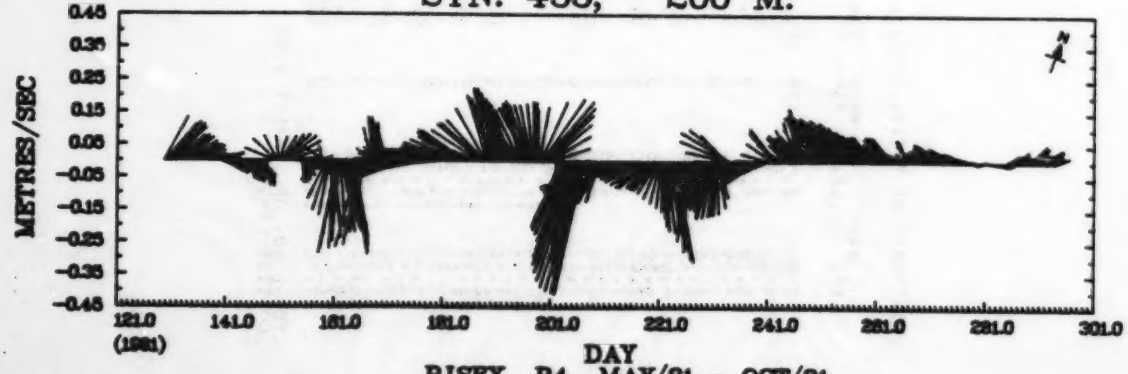
BAND .GE.	.LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	4105	100.0	**********
2.50	3.00	0	0.0	
3.00	3.50	0	0.0	
3.50	4.00	0	0.0	
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4105
OUTSIDE RANGE 0

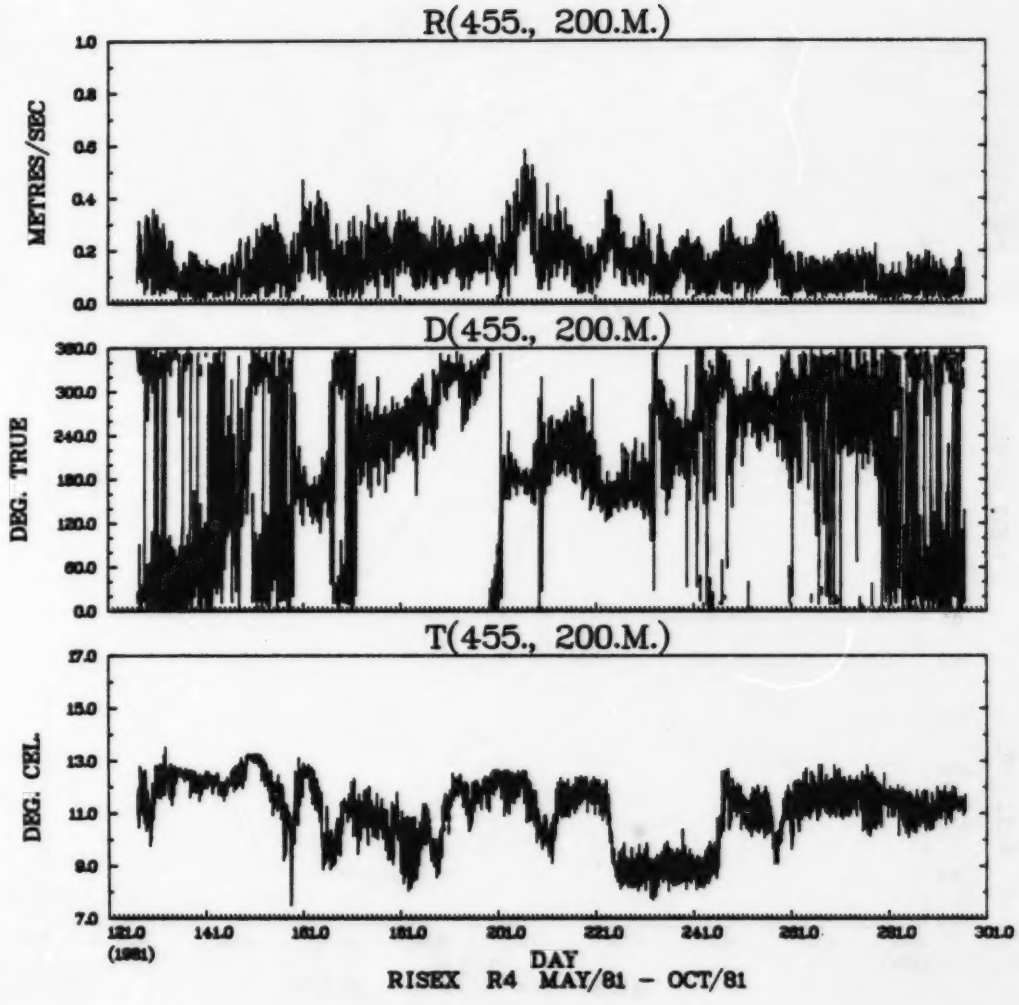
STN. 455, 200 M.

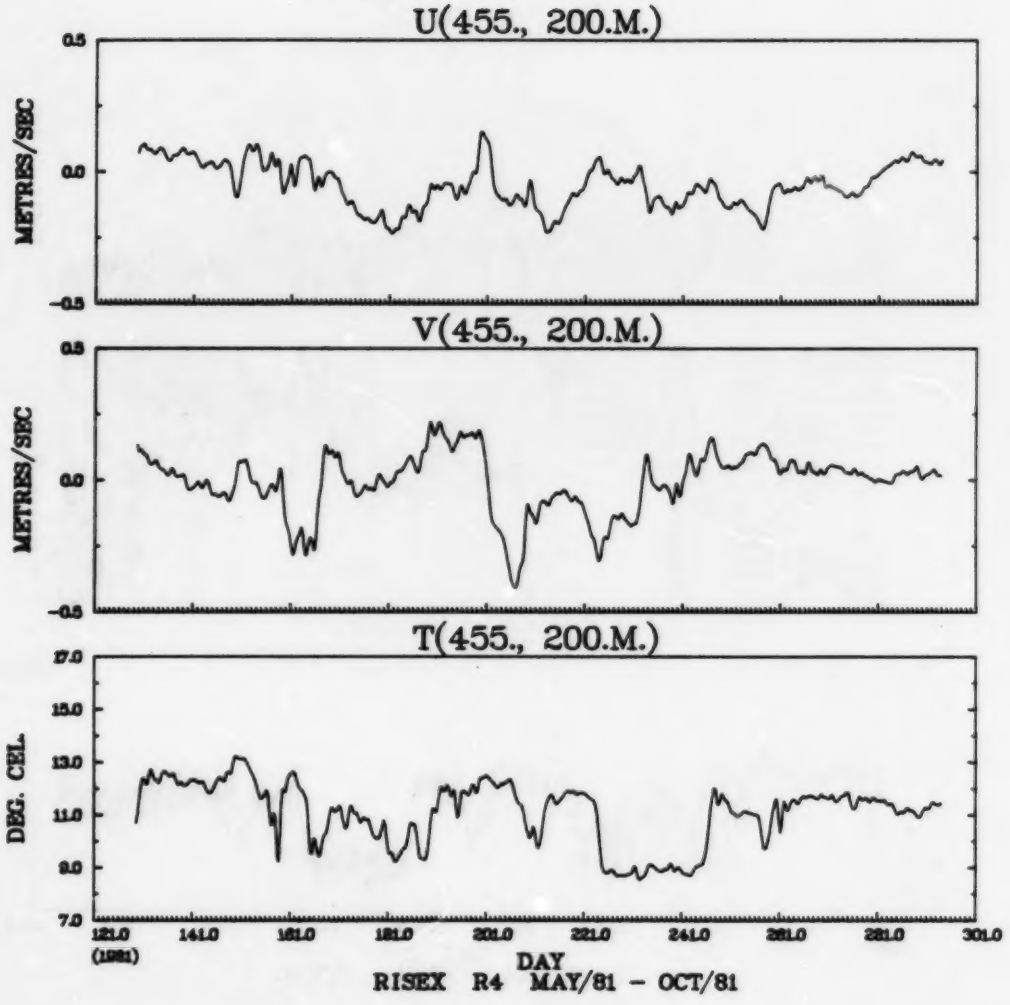


STN. 455, 200 M.



RISEX R4 MAY/81 – OCT/81


R(455., 200.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(455., 200.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(455., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81


U(455., 200.M.)
METRES/SEC
0.5
0.0
-0.5
V(455., 200.M.)
METRES/SEC
0.5
0.0
-0.5
T(455., 200.M.)
DEG. CEL.
17.0
15.0
13.0
11.0
9.0
7.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(455.. 200.M.) VS R(455.. 200.M.)

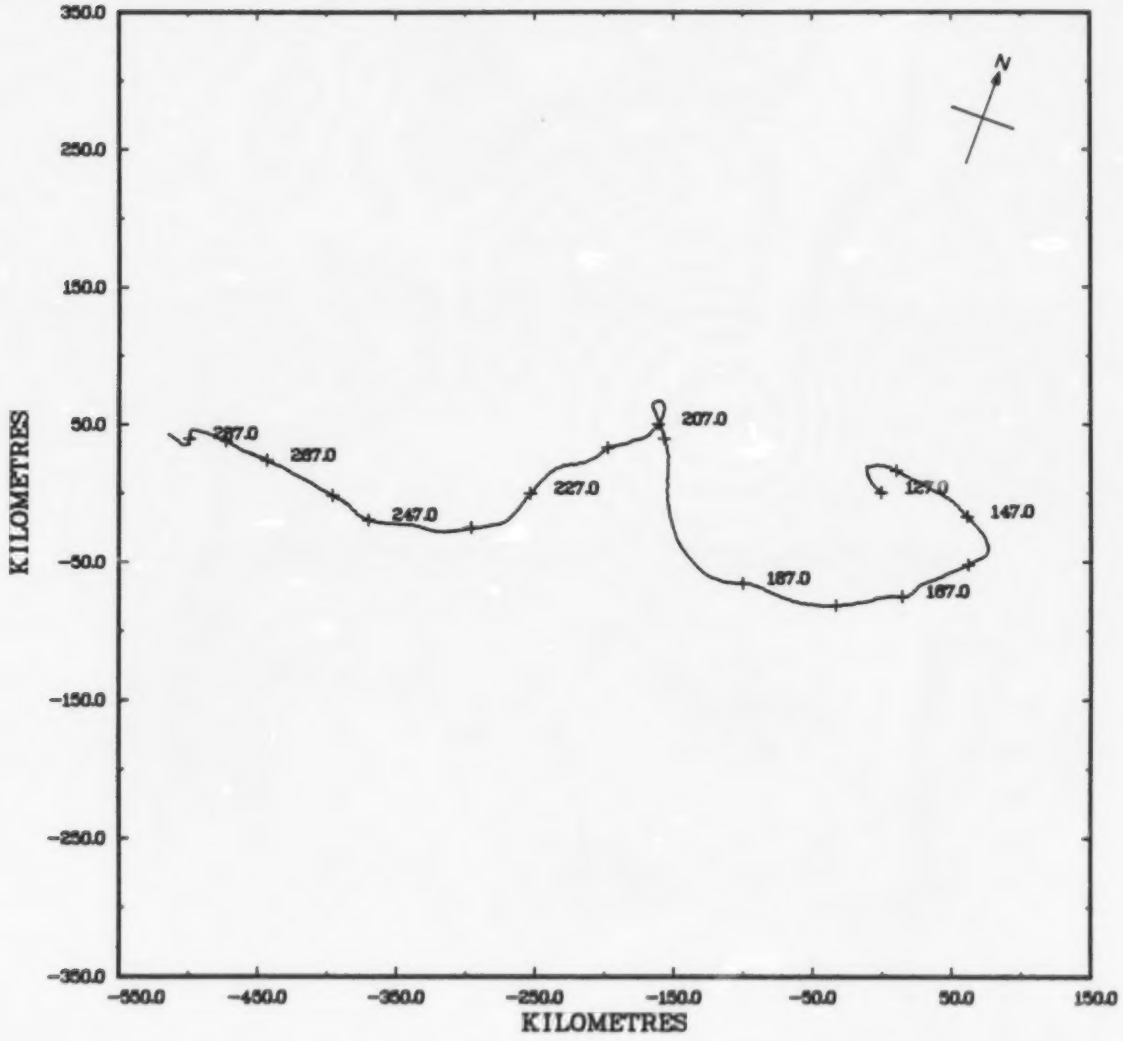
DEGREES METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60	10	*						.2						
.40 TO	.50	37	*					.1	.5	.3					
.30 TO	.40	181	*	.1	.1	.0		.8	1.4	.9	.4	.2	.4	.0	.1
.20 TO	.30	905	*	.9	.4	.5	.5	1.7	2.7	1.9	1.9	3.6	3.6	3.0	1.4
.10 TO	.20	1749	*	1.8	1.7	2.0	1.8	2.0	3.9	3.7	4.8	5.6	6.6	5.3	3.7
-.00 TO	.10	1189	*	3.1	2.1	1.9	1.7	1.8	1.7	2.1	2.4	2.8	3.4	3.0	3.3
OUT OF RANGE		0	0												
SUB TOTAL		4071	0	243	175	179	166	259	429	359	383	495	573	462	348

HISTOGRAM OF T(455., 200.M.) DEG. CEL.

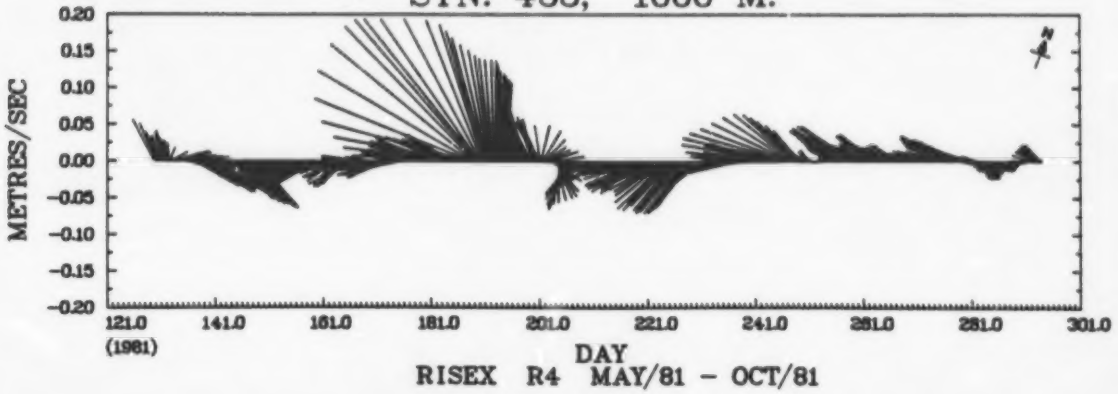
BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT
2.00	2.50	0	0.0
2.50	3.00	0	0.0
3.00	3.50	0	0.0
3.50	4.00	0	0.0
4.00	4.50	0	0.0
4.50	5.00	0	0.0
5.00	5.50	0	0.0
5.50	6.00	0	0.0
6.00	6.50	0	0.0
6.50	7.00	0	0.0
7.00	7.50	0	0.0
7.50	8.00	6	.1
8.00	8.50	95	2.3
8.50	9.00	244	6.0
9.00	9.50	260	6.4
9.50	10.00	190	4.7
10.00	10.50	276	6.8
10.50	11.00	440	10.8
11.00	11.50	748	18.4
11.50	12.00	824	20.2
12.00	12.50	661	16.2
12.50	13.00	268	6.6
13.00	13.50	68	1.7
13.50	14.00	0	0.0
14.00	14.50	0	0.0
14.50	15.00	0	0.0
15.00	15.50	0	0.0
15.50	16.00	0	0.0
16.00	16.50	0	0.0
16.50	17.00	0	0.0
17.00	17.50	0	0.0
17.50	18.00	0	0.0

TOTAL NO. OF SAMPLES 4071
OUTSIDE RANGE 0

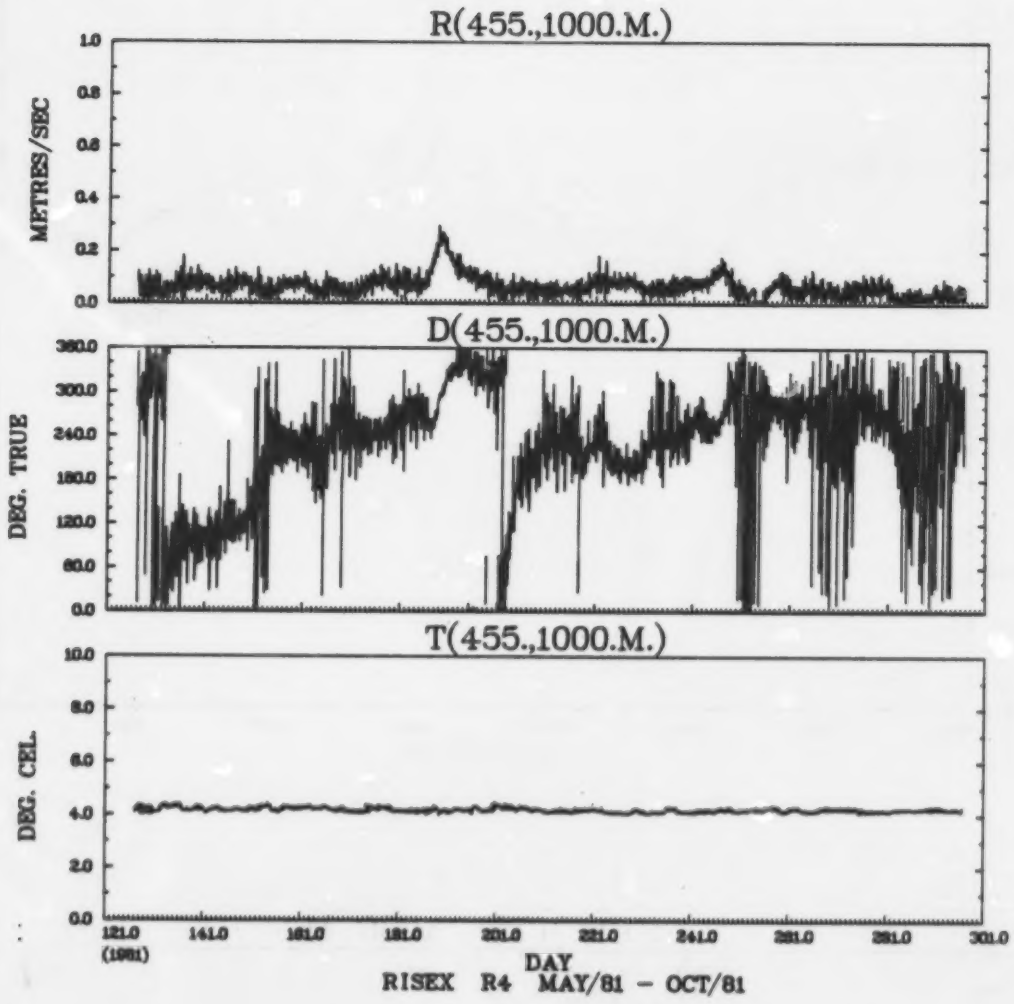
STN. 455, 1000 M.

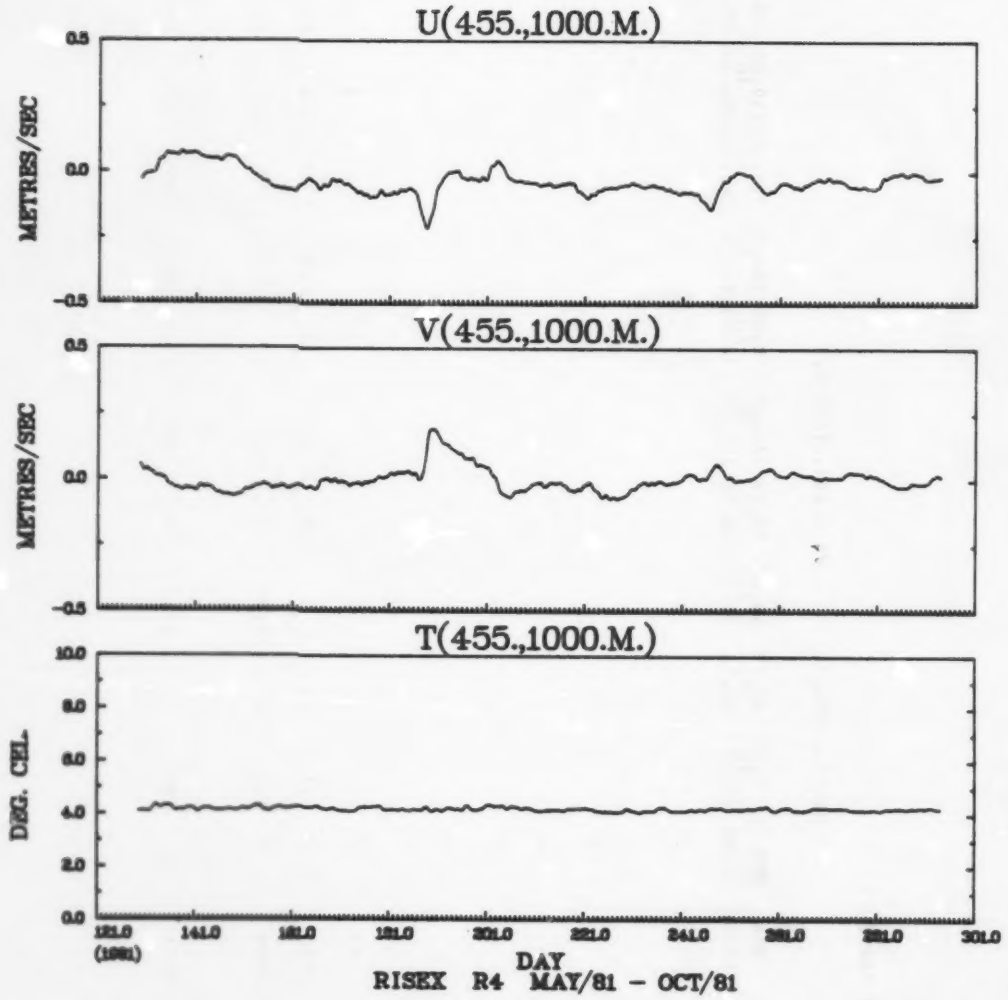


STN. 455, 1000 M.



RISEX R4 MAY/81 - OCT/81


R(455.,1000.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(455.,1000.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(455.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81


U(455.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
V(455.,1000.M.)
METRES/SEC
0.5
0.0
-0.5
T(455.,1000.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(455.,1000.M.) VS R(455.,1000.M.)

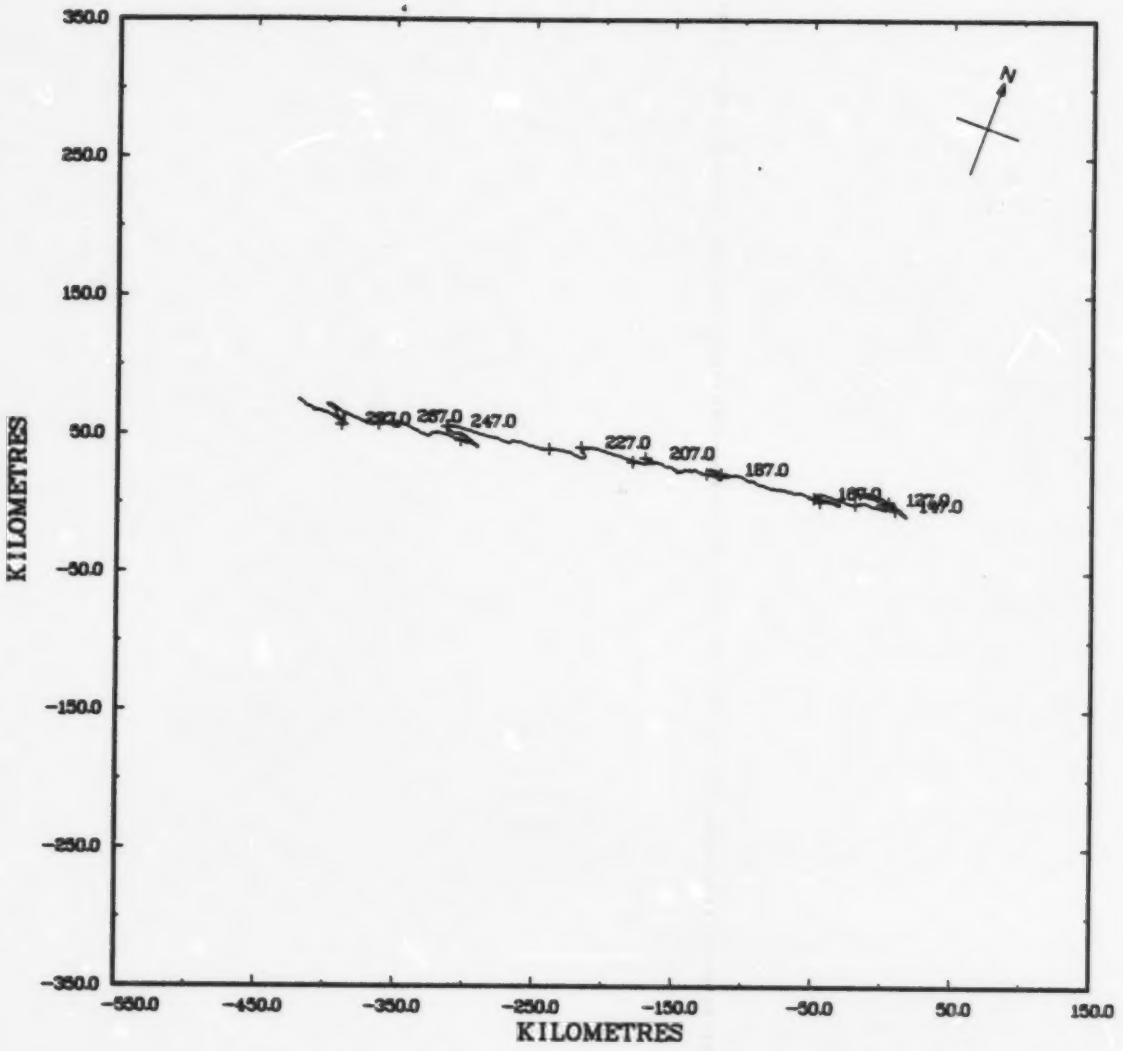
DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	55	*									.1	.8	.4	
.10 TO	.20	524	*	.1	.0	.2	.0	.3	.1	.8	1.1	4.1	1.7	1.9	1.6
-.00 TO	.10	3488	*	1.1	1.8	2.8	5.0	4.4	3.7	10.2	16.3	16.4	14.0	6.8	3.2
OUT OF RANGE		0	0												
SUB TOTAL		4071	0	50	74	121	240	193	156	447	709	838	675	375	195

HISTOGRAM OF T(455.,1000.M.) DEG. CEL.

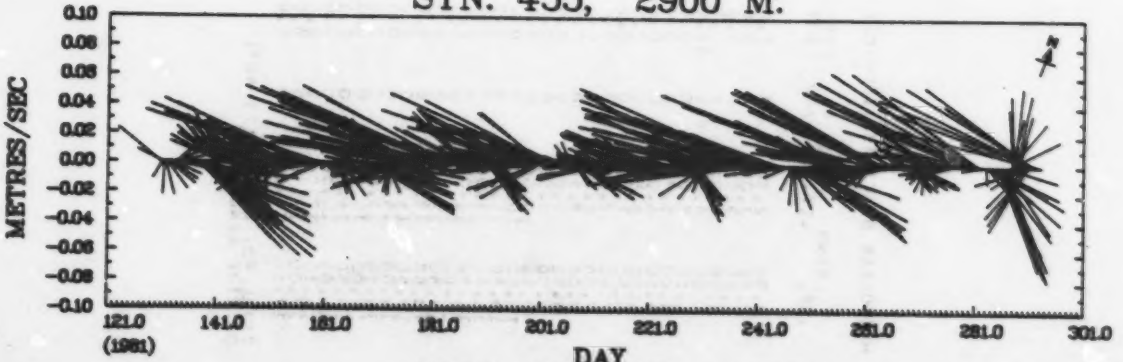
BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	0	0.0	
2.50	3.00	0	0.0	
3.00	3.50	0	0.0	
3.50	4.00	3	.1	*
4.00	4.50	4068	99.9	**********
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4071
OUTSIDE RANGE 0

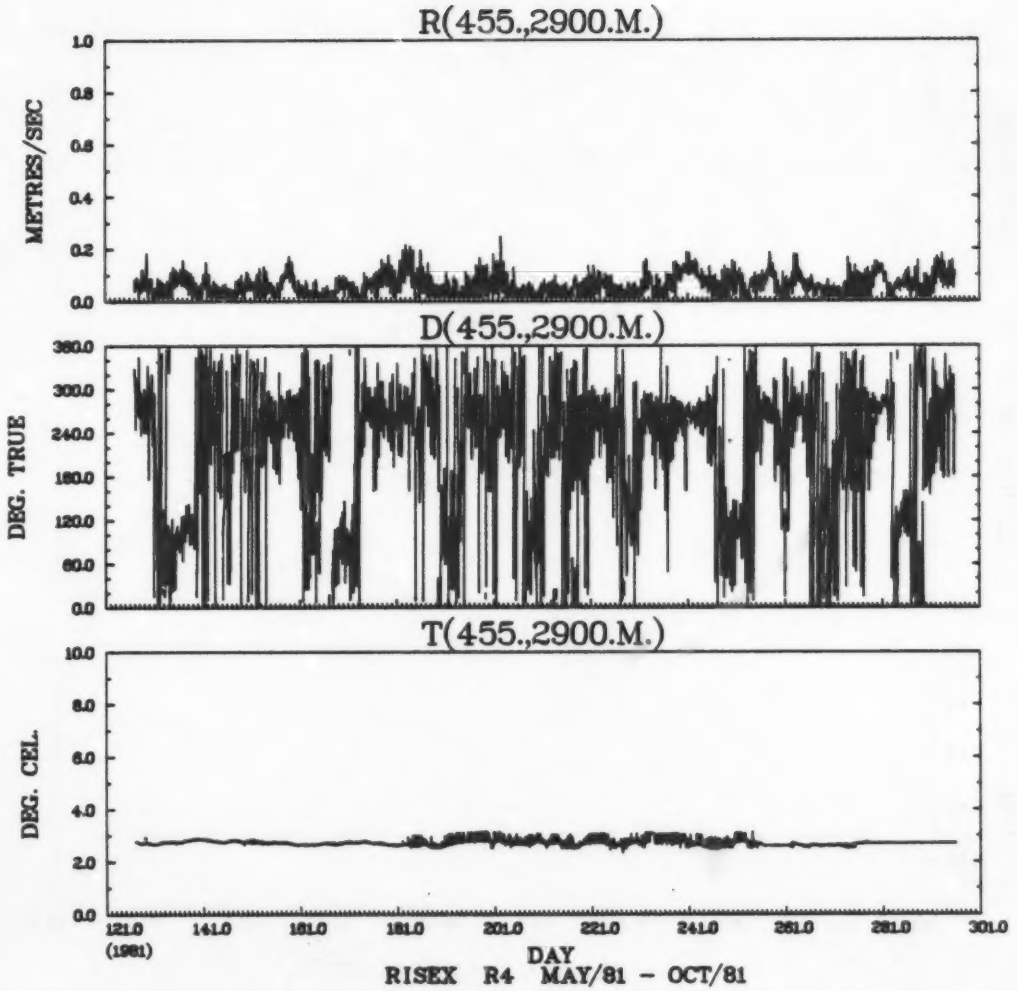
STN. 455, 2900 M.

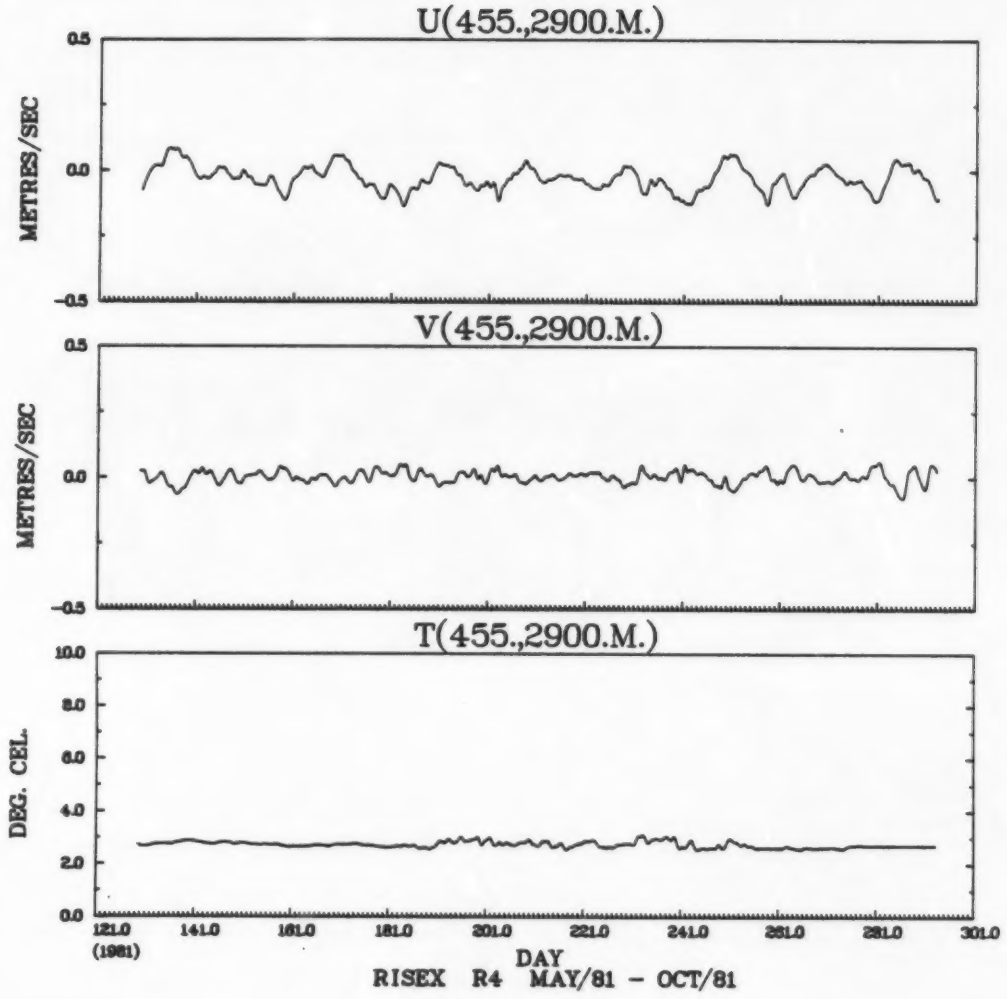


STN. 455, 2900 M.



RISEX R4 MAY/81 - OCT/81


R(455.,2900.M.)
METRES/SEC
1.0
0.8
0.6
0.4
0.2
0.0
D(455.,2900.M.)
DEG. TRUE
360.0
300.0
240.0
180.0
120.0
60.0
0.0
T(455.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81


U(455.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
V(455.,2900.M.)
METRES/SEC
0.5
0.0
-0.5
T(455.,2900.M.)
DEG. CEL.
10.0
8.0
6.0
4.0
2.0
0.0
121.0
(1981)
141.0
161.0
181.0
201.0
221.0
241.0
261.0
281.0
301.0
DAY
RISEX R4 MAY/81 - OCT/81

JOINT DISTRIBUTION (PERCENT)

D(455.,2900.M.) VS R(455.,2900.M.)

DEGREES / METRES/SEC		SUB TOTAL	OUT OF RANGE	0.00 TO 30.00	30.00 TO 60.00	60.00 TO 90.00	90.00 TO 120.00	120.00 TO 150.00	150.00 TO 180.00	180.00 TO 210.00	210.00 TO 240.00	240.00 TO 270.00	270.00 TO 300.00	300.00 TO 330.00	330.00 TO 360.00
.90 TO	1.00		*												
.80 TO	.90		*												
.70 TO	.80		*												
.60 TO	.70		*												
.50 TO	.60		*												
.40 TO	.50		*												
.30 TO	.40		*												
.20 TO	.30	7	*									.1	.0		
.10 TO	.20	658	*	.0		.4	1.0	.3	.0	.3	1.1	5.0	6.9	.8	.2
-.00 TO	.10	3399	*	2.7	3.0	4.7	7.0	5.6	5.5	6.5	9.7	14.8	14.1	6.2	4.0
OUT OF RANGE		0	0												
SUB TOTAL		4056	0	110	123	206	321	243	224	275	438	811	854	282	169

HISTOGRAM OF T(459.,2900.M.) DEG. CEL.

BAND .GE.	BAND .LT.	NUMBER IN BAND	PER CENT	
2.00	2.50	13	.3	*
2.50	3.00	3807	93.9	**********
3.00	3.50	236	5.8	*******
3.50	4.00	0	0.0	
4.00	4.50	0	0.0	
4.50	5.00	0	0.0	
5.00	5.50	0	0.0	
5.50	6.00	0	0.0	
6.00	6.50	0	0.0	
6.50	7.00	0	0.0	
7.00	7.50	0	0.0	
7.50	8.00	0	0.0	
8.00	8.50	0	0.0	
8.50	9.00	0	0.0	
9.00	9.50	0	0.0	
9.50	10.00	0	0.0	
10.00	10.50	0	0.0	
10.50	11.00	0	0.0	
11.00	11.50	0	0.0	
11.50	12.00	0	0.0	
12.00	12.50	0	0.0	
12.50	13.00	0	0.0	
13.00	13.50	0	0.0	
13.50	14.00	0	0.0	
14.00	14.50	0	0.0	
14.50	15.00	0	0.0	
15.00	15.50	0	0.0	
15.50	16.00	0	0.0	
16.00	16.50	0	0.0	
16.50	17.00	0	0.0	
17.00	17.50	0	0.0	
17.50	18.00	0	0.0	

TOTAL NO. OF SAMPLES 4056
OUTSIDE RANGE 0